MOTOROLA

Mobile Laptop 850™

Model L3391, L3392.

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Owner's Manual R01
Part No.: DDN7509

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NOTE

Information in this manual is subject to change without notice.

Regulations Information

Class B Regulations

USA

Federal Communications Commission Radio Frequency Interference Statement

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the manufacturer could void the user' s authority to operate the equipment.

Please note:

The use of a non-shielded interface cable with this equipment is prohibited.

Canada

Canadian Department of Communications

Radio Interference Regulations Class B Compliance Notice

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Products with the CE Marking comply with both the EMC directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

- EN50081-1: Electromagnetic compatibility-Generic emission standard
  - EN55022: conducted Emission, Radiated Emission
  - EN61000-3-2: Current Harmonic
  - EN61000-3-3: Voltage Flicker
- EN50082-2: Electromagnetic compatibility-Generic immunity standard
  - IEC1000-4-2: Electrostatic Discharge
  - IEC1000-4-3: Radiated Susceptibility
  - IEC1000-4-4: Electrical Fast Transients
  - IEC1000-4-5: Surge Test
  - IEC1000-4-6: Conducted Susceptibility
  - IEC1000-4-11: Voltage Dip and Interruption

The Products pass C-UL, UL, TUV approved to comply with EN60950 standard.

"SAFE USAGE NOTIFICATION:

For reasons of personal safety and optimal radio performance, Motorola has designed the ML850 with an intended purpose and position of use either in a secured vehicle docking station or on the top of an office desk. Motorola strongly recommends using this product in a vehicle only when it is physically-secured in a locked or assured-stationary location as failure to do so may cause the product to cause harm in accidents or other conditions. Similarly, Motorola strongly recommends that the unit not be situated for a prolonged period in an a position that places the antennas directly against the human body (for example, by 'tucking' an operational, radio-equipped unit under one's arm).

NOTE: The radio modems in the ML850 may continue to transmit and receive signals even while the laptop is in a closed position. Failure to follow any part of this notification could cause degraded radio performance or harm to the user".

About the Battery

Caution Texts Concerning Lithium Batteries

DANISH

ADVARSEL!

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

NORWEGIAN

ADVARSEL:

Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

SWEDISH

VARNING:

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

FINNISH

VAROITUS:

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan valmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

ENGLISH

CAUTION:

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

DEUTSCH

VORSICHT :

Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleich-wertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

FRENCH

ATTENTION:

II y a danger d' explosion s' il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d' un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Attention (for USA Users)

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

About the Modem

Caution

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.
5. Avoid using the telephone function during an electrical storm. There may be a remote risk of electric shock from lightning.
6. Do not use the telephone function to report a gas leak in the vicinity of the leak.

Caution (for USA Users)

To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord.

Power Supply Cord: (optional) Detachable, minimum 1.5 m long. Listed, rated minimum 125 V, 7 A, having a 2/18 AWG, type SVT flexible cord. One end terminates with a parallel blade, molded-on, attachments plug with a 7 A, 125 V (NEMA 1-15P) configuration; other end terminates with a molded-on appliance coupler.

Alternate: (optional) Detachable, maximum 4.5 m (14.76 ft) long. Listed, rated minimum 250 V, 6 A, having a 3/18 AWG, type SVT flexible cord. One end terminates with a Tandem blade, grounding, listed molded-on, attachments plug with a 6 A, 250 V (NEMA 6-15P) configuration; other end terminates with a molded-on appliance coupler.

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Preface

This manual contains information that will help you operate the computer. It is divided into 8 chapters and an appendix.

Chapter 1, **Getting Started**, takes you through the process of setting up the computer and identifying its external components.

Chapter 2, **Operating Your Computer**, tells you how to use the computer' s components and features.

Chapter 3, **Managing Power**, provides information on power.

Chapter 4, **Expanding Your Computer**, provides information on installing and using peripheral devices.

Chapter 5, **SCU (Setup Configuration Utility)**, describes the SCU program that configures the computer' s BIOS settings.

Chapter 6, **Installing Software Drivers**, describes how to install the drivers and utilities supplied with the computer.

Chapter 7, **Caring for the Computer**, gives you tips in care and maintenance.

Chapter 8, **Troubleshooting**, gives solutions to common problems you may encounter when using the computer.

Appendix A, **Specifications**, gives a brief specification of the computer.

Notational Conventions

Throughout this manual, the following conventions are used to distinguish elements of text.

NOTE: identifies additional information that requires special attention.

CAUTION: identifies important information which, if not followed, may result in loss of data or damage to the computer.

Keyboard keys are shown in a bold typeset. For example:

Press **Enter** to complete.

When keys are joined by a plus sign (+), press the first key, and, while keeping the first key down, press the remaining keys, finally release all the keys. When necessary, keys are also shown in graphics.

A title, command, setup item, or button that you can see on the screen is shown in boldface. A value or an option that you can select for a setup item is shown in italic. For example:

Select **Power Management**, set it to *Enabled*, and then click the **OK** button.

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G) Batteries (they carry their own separate limited warranty).

H) Freight costs to the repair depot.

I) A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with Motorola' s published specifications or with the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from Motorola.

J) Scratches or other cosmetic damage to Product surfaces that do not affect the operation of the Product.

K) That the software in the product will meet the purchaser' s requirements or that the operation of the software will be uninterrupted or error-free.

L) Normal and customary wear and tear.

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B) That Motorola will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and

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EPS-48759-O

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The FCC requires that manuals pertaining to Class A and Class B computing devices must contain warnings about possible interferm1ce with local residential radio and TV reception. This warning reads as follows:

NOTE: This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial or residential environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

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Centrino and Intel are registered trademarks of Intel Corporation.

CHAPTER 1

Getting Started

Congratulations on purchasing this industrial notebook computer.
It' s rugged, compact, and portable design allows you to use it in the field or inside a vehicle and other demanding situations where conventional notebook computers just cannot measure up. It can also connect with a docking station to extend the capabilities of input/output devices.
This chapter first tells you step by step how to get the computer up and running. You will find instructions for these procedures:

- Unpacking
- Connecting to AC power
- Opening the cover
- Connecting the computer to the docking station
- Turning on the computer
- Turning off the computer

Then, you will find a section briefly introducing the external components of the computer. And the last section navigates you to the information you may need after the computer is ready for use.

Getting the Computer Running

This section guides you through the procedures for getting the computer ready for operation.

Unpacking

After unpacking the shipping carton, you should find these standard items:

- Notebook Computer
- Accessories:
  - AC adapter (100~240 VAC, 50~60 Hz)
  - AC power cord
  - Driver CD
  - Docking Station (Optional), include CD-ROM/DVD-ROM/COMBO & FD Drive
  - Car-mount (Optional)
  - Car adapter (12~32 VDC) – (Optional)
  - External battery charger – (Optional)
  - This *Operation Manual*
  - Touchscreen Pen (Optional)
  - 3M High Performance Cloth

Inspect all the items. If any item is damaged or missing, notify your dealer immediately.

Keep the shipping carton and packing materials in case you need to ship or store the computer in the future.

Connecting to AC Power

The computer operates either on the external AC power or internal battery power. It is suggested that you use AC power when you start up the computer for the first time.

CAUTION: Use only the AC adapter included with your computer. Using other AC adapters may damage the computer.

1. Make sure the computer is turned off.
2. Plug the DC cord of the AC adapter to the power connector on the computer.

> **NOTE:** When the computer is attached to the docking station, connect the DC cord to the power connector on the docking station instead.

3. Plug the female end of the AC power cord to the AC adapter and the male end to an electrical outlet.
4. When the AC adapter is connected, the indicator on the computer / docking station lights up, indicating that power is being supplied from the electrical outlet to the AC adapter and onto your computer / docking station. Now, you are ready to turn on the computer.

> **CAUTION:**
> - When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer / docking station. A reverse procedure may damage the AC adapter or the computer / docking station.
> - When unplugging the connector, always hold the plug head. Never pull on the cord.
>
> **NOTE:** When the AC adapter is connected, it also charges the battery pack. For information on using battery power, see Chapter 3.

Opening the Cover

> **CAUTION:** Be gentle when opening and closing the cover. Opening it vigorously or slamming it shut could damage the computer.

Open the top cover by pulling the cover latch (bottom part) outward using your thumb and at the same time using your index finger to press on the notch on the top portion, and lifting up the cover. You can tilt the cover forward or backward for optimal viewing clarity.

Closing the Cover

When closing the cover, make sure that the hook is latched properly to safeguard against the following:

- To prevent damage to the LCD screen during transport.
- To prevent the computer from accidentally waking up from Suspend mode during transport without the user's knowledge.

Turning On and Off the Computer

Turning On

1. Make sure the computer / docking station is connected to AC power.
2. Press the power button.

3. Each time the computer is turned on, it performs a Power-On Self - test (POST), and the operating system such as Windows should start.

Turning Off

To turn off the computer power, use the "Shut Down" command of your operating system.

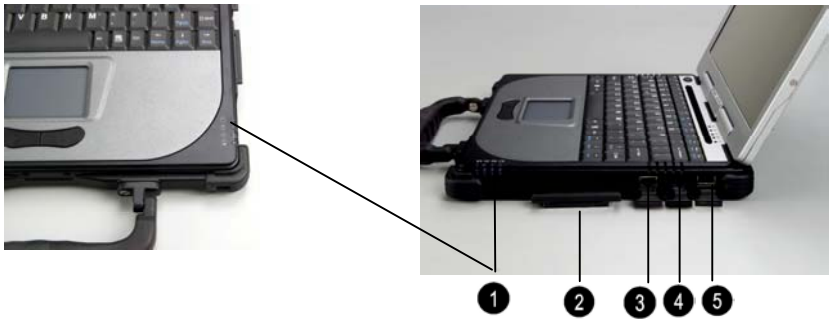
> **NOTE:** There are other ways you can stop the computer so that you will be back to where you left off when you next turn on the computer. (See "Stopping the Computer" in Chapter 2 for information.)

> **CAUTION:** If you have to turn the computer on again immediately after turning it off, wait for at least five seconds. Turning the computer off and on rapidly can damage it.

Taking a Look at the Computer

This section identifies the external components of the computer and briefly describes the function of each component.

Right-Side Components



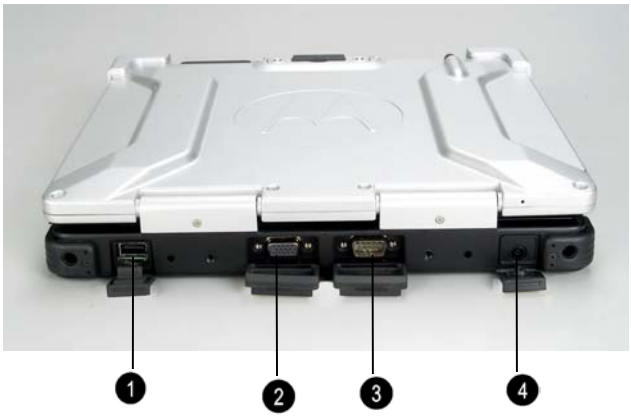
Ref	Component		See Also
1	**Device Indicators**	Shows the current status of the computer's devices.	
		Battery State Indicator – blinks orange when battery charge is 9% or lower.	

Ref	Component	Description	See Also
		Battery Charge Indicator: – glows green when the battery is fully charged. – Glows orange when the battery is being charged. – Is dark when battery has no charge left and AC adapter is connected and powered on.	
		System State Indicator: – glows green when the computer is powered on. – Glows orange when the computer is in Suspend mode.	
		AC Power Indicator – glows green when computer is connected to AC power and is powered-on.	
❷	**PC Card Slot**	Accepts a PC Card for additional functions.	
❸	**RJ-45 Connector**	Connects the LAN cable.	
❹	**RJ-11 Connector**	Connects the telephone line.	
❺	**USB Port**	Connects an USB device such as printer, digital camera, joystick and more.	

Left-Side Components

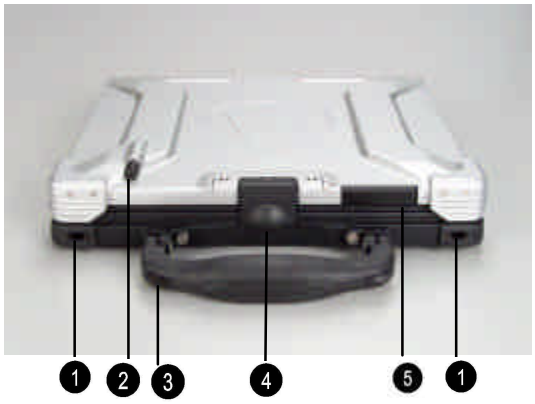
Ref	Component	Description	See Also
1	**Audio Output Connector**	Connects a hi-fi set, radio set, synthesizer, walkman, etc.	
2	**Microphone In Connector**	Connects an external microphone.	

Rear Components

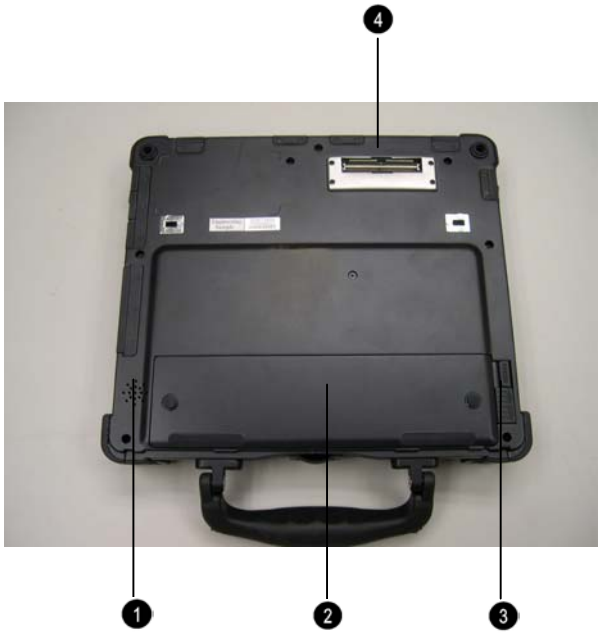


Ref	Component	Description	See Also
❶	**USB Port**	Each of the two ports connects a USB device, such as a USB floppy drive, printer, digital camera, joystick, and more.	
❷	**VGA Port**	Connects an external monitor.	
❸	**Serial Port**	Connects a serial device, such as mouse.	
❹	**Power Connector**	Connects the AC adapter.	

Front Components



Ref	Component	Description	See Also
❶	**Notched Hole**	Allows you to hook the computer to the docking station.	
❷	**Wireless Modem or GSM Antenna**	Serves as the antenna for the optional wireless modem or GSM/GPRS, CDMA etc..	
❸	**Touchscreen Pen**	Provides a convenient way to use the touchscreen. Can be stretched for better grip and handing.	
❹	**Top Cover Latch**	Locks the top cover.	
❺	**Wireless LAN Antenna**	Serves as the antenna for the Wireless LAN.	



Ref	Component	Description	See Also
❶	**Speaker**	Sends out sound and voice from the computer.	
❷	**Battery Compartment Cover**	Open the cover to access the battery pack.	
❸	**Battery Cover Latch**	Locks the battery compartment.	
❹	**Docking Connector**	Serves as the interface between the docking station and the computer.	

Top-Open Components

Ref	Component	Description	See Also
❶	**LCD Screen**	Displays the output of the computer.	
❷	**Device Indicators**	Shows the current status of the computer's devices.	
	Caps Lock Indicator	Caps Lock Indicator – glows green when **Caps Lock** key is pressed and its function is activated.	
	Num Lock Indicator	Num Lock Indicator– glows green when **Num Lk** key is pressed and its function is activated.	
	Scroll Lock Indicator	Scroll Lock Indicator – glows green when **Scroll Lk** key is pressed and its function is activated.	

		LAN 10/100 Indicator – glows orange when LAN speed is 10 MBPS – glows green when LAN speed is 100 MBPS
		Hard Disk Drive Indicator (includes Floppy Disk Drive or CD-ROM Drive In-use Indicator when computer is connected to docking station)
❸	**Keyboard**	Serves as the data input device of the computer.
❹	**Touchpad**	Serves as the pointing device of the computer.
❺	**Power Button**	Turns the computer power ON and OFF.

Where to Go from Here

As your computer is ready for operation, you may want to do any of the following now:

For this purpose …	Do this …
To know more about the computer …	Go on to the next chapter.
To install the operating system if your dealer has not already done so …	See the operating system manual.
To know more about the operating system …	Read the operating system manual.
To install the drivers if your dealer has not already done so …	See Chapter 6.
To set a power-on password …	See "Security Menu" in Chapter 5.
To charge the battery pack for the first time …	See "Charging the Battery Pack" in Chapter 3.

CHAPTER 2

Operating Your Computer

This chapter provides information about the use of the computer.
If you are new to computers, reading this chapter will help you learn the operating basics. If you are already a computer user but are new to notebook computers, you may choose to read only the parts containing information unique to your computer.
Described in this chapter are the operating basics of these components:

- Keyboard
- Touchpad
- Touchscreen
- Floppy disk drive (when connected to docking station)
- Hard disk drive
- CD/DVD/COMBO drive (when connected to docking station)

And these features:

- Starting and stopping the computer
- Function keys
- Video features
- Audio features
- Communication features

Starting and Stopping the Computer

There are a number of ways to start and stop the computer.

Starting the Computer

You always start the computer using the power button.
A computer starts up with an operating system (OS) existing on the storage device such as the hard disk; or from a floppy disk or CD if you have the docking station installed. The computer will automatically load the OS after you turn it on. This process is called booting.

> **NOTE:** An operating system is the platform for all your software application programs to run on. The most widely used operating system today is Microsoft Windows.

Stopping the Computer

When you finish a working session, you can stop the computer by turning off power or leaving the computer in Standby or Suspend mode:

To stop in this mode …	Do this …	To start up or resume again
Off	Follow the shutdown procedure of your operating system. This can prevent loss of unsaved data or damage to your software programs. If the system is locked up because of hardware or software problems, press the power button to turn off the computer.	Press the power button.
Standby	Depending on your settings in Windows, you can place the computer in Standby mode by: • Closing the display cover • Pressing the power button • Pressing **Fn**+**F10**	Press any key or Open Lid.

To stop in this mode …	Do this …	To start up or resume again
Hibernation	Depending on your settings in Windows, you can place the computer in Hibernation mode: ● by pressing the power button ● by closing the display cover.	Press the power button.

If you choose to stop in Standby or Hibernation mode, you can return to where you left off the next time you start up the computer. (See "Power Management" in Chapter 3 for more information.)

Using the Keyboard

Your keyboard has all the standard functions of a full-sized computer keyboard plus a **Fn**. key added for specific functions.
The standard functions of the keyboard can be further divided into four major categories:

Typewriter keys

Cursor-control keys

Numeric keys

Function keys

Typewriter Keys

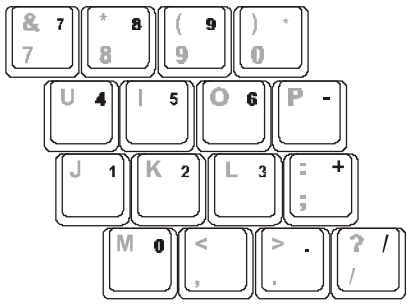
Typewriter keys are similar to the keys on a typewriter. Several keys are added such as the **Ctrl**, **Alt**, **Esc**, and lock keys for special purposes. The Control key is normally used in combination with other keys for program-specific functions. The Alternate key is normally used in combination with other keys for program-specific functions. The Escape key is usually used for stopping a process. Examples are exiting a program and canceling a command. The function depends on the program you are using. When the lock keys (**Caps Lock**, **Num Lk**, and **Scroll Lk**) are pressed, their corresponding indicators light up on the computer's device indicators.

Cursor-Control Keys

> **NOTE:** The word "cursor" refers to the indicator on the screen that lets you know exactly where on your screen anything you type will appear. It can take the form of a vertical or horizontal line, a block, or one of many other shapes.

Numeric Keypad

A 15-key numeric keypad is embedded in the typewriter keys as shown next:



Numeric keys facilitate entering of numbers and calculations. When **Num Lk** is on, the numeric keys are activated; meaning you can use these keys to enter numerals with "Fn" key.

NOTE:
- Some software may not be able to use the numeric keypad on the computer. If so, use the numeric keypad on an external keyboard instead.

Euro Symbol

If your Windows supports the Euro dollar sign €, you can press the sign on the keyboard.

- To press the CTRL+ALT+E.

Function Keys

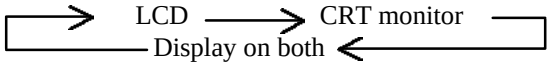
On the top row of the keys are the function keys: **F1** to **F12**. Function keys are multi-purpose keys that perform functions defined by individual programs.
Hot key functions are assigned to **F1**, **F3**, **F4**, **F5**, **F6**, **F8**, **F9**, and **F10** by your computer. (See "Hot Keys" section in this chapter for information.)

Fn. Key

The **Fn**. key, at the lower left corner of the keyboard, is used with another key to perform the alternative function of a key. The letter "Fn." and the alternative functions are identified by the color of blue on the keycap. To perform a desired function, first press and hold **Fn.**, then press the other key.

Hot Keys

Key	Description
Fn+F1	Toggles Keyboard backlight.
Fn+**F3**	Decreases the speaker volume.
Fn+**F4**	Increases the speaker volume.
Fn+F5	Decreases the LCD brightness.
Fn+F6	Increases the LCD brightness.
Fn+F7	Toggle LCD Backlight On/Off.
Fn+F8	Switches LCD on and off.

Key	Description
Fn+**F9**	Switches the display output to one of the following three when an external CRT monitor is connected through the docking station.  **NOTE:** If the display mode is set to 256 colors or lower, or in DOS mode, there will be only two modes for selecting: CRT only and Display on both.
Fn+**F10**	Serves as the sleep button that you can define with Windows' **Power Management**. (See "Power Management" in chapter 3.)

Using the Touchpad

CAUTION: Do not use a sharp object such as a pen on the touchpad. Doing so may damage the touchpad surface.

NOTE: For optimal performance of the touchpad, keep your fingers and the pads clean and dry. When tapping on the pad, tap lightly. Do not use excessive force.

The touchpad is a pointing device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection with the buttons. The touchpad consists of a rectangular pad and two buttons. To use the touchpad, place your forefinger or thumb on the pad. The rectangular pad acts like a miniature duplicate of your display. As you slide your fingertip across the pad, the pointer (also called cursor) on the screen moves accordingly. When your finger reaches the edge of the pad, simply relocate yourself by lifting the finger and placing it on the other side of the pad.

Here are some common terms that you should know when using the touchpad:

Term	Action
Point	Move your finger on the pad until the cursor points to the selection on the screen.
Click	Press and release the left button. -or- Tap gently anywhere on the pad.
Double-click	Press and release the left button twice in quick succession. -or- Tap twice on the pad rapidly.

Term	Action
Drag and drop	Press and hold the left button, then move your fingers until you reach your destination (drag). Finally, release the button (drop) when you finish dragging your selection to the destination. The object will drop into the new location. -or- Gently tap twice on the pad, and on the second tap, keep your finger in contact with the pad. Then, move your finger across the pad to drag the selected object to your destination. When you lift your finger from the pad, the selected object will drop into place.
Scroll	To scroll is to move up and down or left and right in the working area on the screen. To move vertically, place your finger on the right edge of the pad and slide your finger up and down along the edge. To move horizontally, place your finger on the bottom edge of the pad and slide your finger left and right. This function works only after you install the touchpad driver supplied with the computer and it may not work for all applications.

TABLE NOTE: If you swap the left and right buttons, "tapping" on the touchpad as an alternative method of pressing the left button will no longer be valid.

Configuring the Touchpad

You may want to configure the touchpad to suit your needs. For example, if you are a left-handed user, you can swap the two buttons so that you can use the right button as the left button and vise versa. You can also change the size of the on-screen pointer, the speed of the pointer, and so on.

To configure the touchpad, you can use the standard Microsoft or IBM PS/2 driver if you are using Windows. However, you can install the touchpad driver supplied with your computer to take advantage of more powerful features. (For information on installing the driver, see "How to Use the CD" in Chapter 6.)

Using the Touchscreen (Optional)

CAUTION: Do not use a sharp object such as a ballpoint pen or pencil on the touchscreen. Doing so may damage the touchscreen surface. Use the included touchscreen pen instead, which can be stretched for better grip and handling.

The touchscreen is a touch-sensitive device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection with the buttons.

The touchscreen needs a special device driver support called a PenMount Utility, which allows you to easily use the computer without any external pointing device.

The touchscreen pen is located at the handle of the computer (refer to "Rear Components" on chapter 1). To use the touchscreen, place the touchscreen pen or your forefinger on the touchscreen. As you slide your pen or fingertip across the screen, the pointer, or cursor, on the screen moves in the same direction across the screen as your fingertip or pen moves across the screen.

Here are some common terms that you should know when using the touchscreen:

Term	Action
Point	Move your finger or pen on the touchscreen until the cursor points to the selection on the screen.
Click	Tap gently anywhere on the touchscreen.
Double-click	Tap twice on the touchscreen rapidly.
Drag and drop	Press lightly on the touchscreen and move your finger or pen until you reach your destination (drag). Finally, release your finger or pen (drop) when you finish dragging your selection to the destination. The object will drop into the new location.

Term	Action
Scroll	To scroll is to move up and down or left and right in the working area on the screen. To move vertically, place your finger or pen on the right edge of the touchscreen and slide your finger or pen up and down along the edge. To move horizontally, place your finger or pen on the bottom edge of the touchscreen and slide your finger or pen left and right. This function works only after you install the touchscreen driver supplied with the computer and it may not work for all applications.

TABLE NOTE: If you swap the left and right buttons, "tapping" on the touchscreen as an alternative method of pressing the left mouse button will no longer be valid.

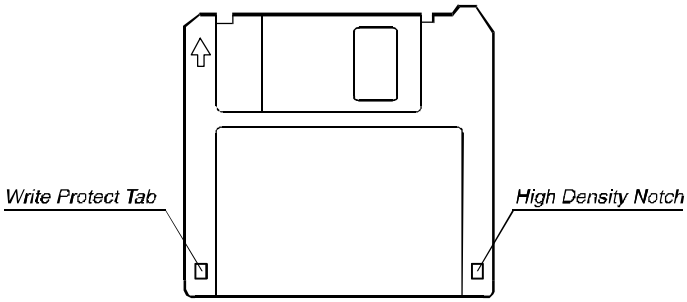
Configuring the Touchscreen

You may want to configure the touchscreen to suit your needs. You can also change the size of the on-screen pointer, the speed of the pointer, and so on.

To configure the touchscreen, you can use the standard Microsoft or IBM PS/2 driver if you are using Windows. However, you can install the touchscreen driver supplied with your computer to take advantage of more powerful features. (For information on installing the driver, see Chapter 6.)

Using the Floppy Disk Drive (optional)

Your computer may come with the optional floppy disk drive as drive A through the optional docking station.
A floppy disk drive allows you to install new programs into your computer, or to store information on a removable floppy disk so you can transfer information from one computer to another.



The floppy disk drive is a high-density 3.5-inch one, which can read and write to either double-density (2DD) 720-KB floppy disks or high-density (2HD) 1.44-MB floppy disks. Notice that both types of floppy disk have an arrow imprinted on the front upper left corner , and a sliding write-protect tab on the bottom left corner, as illustrated above. When opened, the write-protect tab prevents data from being written to, or erased from, the floppy disk.

Inserting and Ejecting Floppy Disks

To insert a floppy disk, hold it with the arrow facing up and towards the drive. Slide the disk into the drive until it clicks into place.

To eject a floppy disk, first ensure that the floppy disk drive in-use indicator is off, and then press the eject button on the drive. When the floppy disk pops out of the drive, remove the floppy disk and store it properly.

CAUTION:

- Never turn off or reset the computer while the floppy disk drive in-use indicator is on.
- Always store your floppy disks in a safe, clean container, to protect them from the environment and magnetic fields.
- A floppy disk must be formatted before you can use it. (To know how to format a floppy disk, see your operating system manual.)

Using the Hard Disk Drive

Your computer comes with a hard disk drive as drive C.
A hard disk drive is a storage device with non-removable, rotating, magnetic storage platters inside it. It is where your operating system and application software programs are stored.
Your hard disk drive is a 2.5-inch IDE (Integrated Drive Electronics) hard disk drive. This type of drive embodies the latest in fast, reliable mass storage by integrating all the control circuitry necessary for operation directly onto the drive itself. This allows the drive manufacturer to carefully optimize drive performance.

CAUTION:

- Make regular backups of your data files from your hard disk drive to floppy disks or other storage media.
- Never try to remove or install the hard disk drive while the computer is powered on. Doing so can result in loss of data, and can damage the computer and the hard disk drive' s sensitive circuitry.
- Never turn off or reset the computer while the hard disk drive in-use indicator is on.

Using the CD/DVD/COMBO Drive (optional)

Your computer may come with an optional CD-ROM drive, COMBO drives, or DVD-ROM drives through the optional docking station. This drive is usually configured as drive D.

The drive uses removable 5.25-inch silver CD-ROM discs, which look like standard music CDs. It is an ideal medium to use for distributing multimedia because of the huge amount of data that a disc can store.

A CD-ROM drive can read CD-ROMs, audio CDs, CD-R, and COMBO disk. A CD-RW drive not only reads the above discs but also writes to CD-R and CD-RW discs. A DVD-ROM drive can read DVD (Digital Versatile Disc) discs in addition to the above discs.

CAUTION:

1. When inserting a CD, do not use force.
2. Make sure the CD is correctly inserted into the tray, and then close the tray.
3. Do not leave the CD tray open. Also, avoid touching the lens in the tray with your hand. If the lens becomes dirty, the CD-ROM may malfunction.
4. Do not wipe the lens with rough surface materials (such as paper towel). Instead, use a cotton swab to gently wipe the lens.

FDA regulations require the following statement for all laser-based devices:
" Caution, Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure."

Inserting and removing a CD

Follow this procedure to insert or remove a CD.

1. Turn on the computer.
2. Press the eject button and the CD tray will slide out partially. Gently pull it until fully extended.
3. To insert a CD, put down the CD in the tray with its label facing up. Slightly press the center of the CD until it clicks into place.

   To remove a CD, hold the CD by its outer edge and lift it up from the tray.
4. Gently push the tray back into the drive.

> **NOTE:** In the unlikely event that you are unable to release the CD tray by pressing the eject button, you can manually release the CD. (See " CD/DVD Drive Problems" in Chapter 8.)

Using the Video Features

The video subsystem of your computer features:

- 12.1-inch TFT (Thin-Film Transistor) color LCD display with 1024x768 XGA (Extended Video Graphics Array) resolution.
- Sunlight Readable Panel , Hi-Contrast solution LCD (Optional).
- Simultaneous display on LCD and external monitor (connect through the docking station), which is useful when you have a presentation as you can control the screen from your computer and face the audience at the same time.
- Multi-display capability, which allows you to expand your desktop on the screen to another display device so that you have more desktop space to work on.

Power Management.

> **NOTE:** The computer enters Standby or Suspend mode when the LCD is closed. If you want to use the computer with the LCD closed, set *None* to the " When I close the lid of my portable computer" option in the Power Management properties. Thus the computer does not enter Standby or Suspend mode when the LCD is closed.

Configuring the Display Modes

> **NOTE:** To take advantage of the enhanced video capabilities, the video driver supplied with your computer must be installed.

Your computer has been set to a default resolution and number of colors before shipment. You can view and change display settings through your operating system. See your operating system documentation or online help for specific information.
For displaying in higher resolutions, you can connect an external CRT monitor that supports higher resolutions through the optional docking station. (See"Connecting a Monitor"in Chapter 4 for more information.)
The following table lists the display modes supported by your computer.

Display Mode		LCD Only	CRT Only	Simultaneous Display
Resolution	**Colors**			
640x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
720x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
800x600	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
848x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√

Display Mode		LCD Only	CRT Only	Simultaneous Display
1024x768	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
1152x864	8-bit		√	
	16-bit		√	
	24-bit		√	
	32-bit		√	
1280x1024	8-bit		√	
	16-bit		√	
	24-bit		√	
1600x1200	8-bit		√	
	16-bit		√	

TABLE NOTE: 8-bit = 256 colors; 16-bit = High Color or 65,536 (64 K) colors; 24 and 32-bit = True Color 16,770,000 (16 M) colors.

Using the Audio Features

NOTE:
- To take advantage of the enhanced audio capabilities, the audio driver supplied with your computer must be installed.
- If you experience interference while recording, try lowering the microphone recording volume.

The audio subsystem of your computer features:

- Digital audio and analog mixing functions required for recording and playing sound on your computer
- SoundBlaster Pro, Adlib, and Microsoft Windows Sound System support
- Speaker (located on the underside of both computer and the optional docking station)
- External audio connectors (located on the left side of the computer or on the right side of the optional docking station)

Ways of playing and recording sound vary with the operating system used. See your operating system documentation or online help for specific information.

Connecting Audio Devices

For higher audio quality, you can send or receive sound through external audio devices.

- **Microphone Connector** ( ) can be connected to an external microphone for recording voice or sound.
- **Audio Output Connector** ( ) can be connected to the line-in connector of powered speakers with built-in amplifiers, headphones, or earphone set.

NOTE: When using external speakers/headphones, you cannot use the internal one.

Using the Communication Features

Using the Modem

> **NOTE:** To take advantage of the modem feature, the modem driver supplied with your computer must be installed.

The internal 56 K fax/data modem allows you to use the telephone line to communicate with others by fax, email, or connect to an online service or bulletin board.
To connect the telephone line to the modem, connect the end nearest the core on the modem cable to the computer' s RJ-11 connector and the other end to the telephone line.

Using the LAN

> **NOTE for Windows 2000:** To take advantage of the LAN feature, the LAN driver supplied with your computer must be installed.

The internal 100Base-T LAN (Local Area Network) module allows you to connect your computer to a network. It supports data transfer rate up to 100 Mbps.
To connect the network cable to the LAN module, connect one end of the LAN cable to the RJ-45 connector on the computer and the other end to the network hub.

Using the Wireless LAN

Depending on your model, an internal Mini PCI wireless LAN (WLAN) card may have been pre-installed by your computer manufacturer at the factory. This card allows you to access corporate networks or the Internet in a wireless environment.

The WLAN features include:

- IEEE 802.11b standard compliance
- 2.4 GHz DSSS (Direct Sequence Spread Spectrum) technology
- Peer-to-Peer (Ad-Hoc) and Access Point (Infrastructure) modes support
- WEP (Wired Equivalent Privacy) 64/128-bit data encryption
- Transmission rate at 11 Mbps, 5.5 Mbps, 2 Mbps, and 1 Mbps with automatic data rating

To take advantage of the WLAN feature, make sure that the WLAN driver is installed correctly. (See Chapter 6 for more information.) If your WLAN card was provided by your dealer instead of the computer manufacturer, contact your dealer for the correct driver to use.

Configuring the WLAN

After driver installation, you can use the WLAN utility to configure and monitor your WLAN connection. If you are using Windows XP, you can also use its built-in WLAN utility. Follow this procedure to launch the WLAN utility in Windows XP:

1. Select **Control Panel** from the **Start** menu.
2. Click **Network and Internet Connections**.
3. Click **Network Connections**, then double-click the **Wireless Network Connection** icon .
4. Click **Properties** in the **Wireless Network Connection Status** dialog box.

You can configure your WLAN settings in the **Wireless Network Connection Properties** dialog box.

CHAPTER 3

Managing Power

Your computer operates either on external AC power, car adapter, or internal battery power.

This chapter tells you how you can effectively manage power. To maintain optimal battery performance, it is important that you use the battery in the proper way.

The topics in this chapter include:

- What is an AC or car adapter?
- How to charge the battery pack
- When and how to initialize the battery pack
- How to check the battery level
- How to replace the battery pack
- What happens when the battery is low and what actions to take
- What is Power Management?
- How to save power

AC and Car Adapter

CAUTION:

- The AC and car adapter is designed for use with your computer only. Connecting the AC adapter to another device can damage the adapter.
- The AC power cord supplied with your computer is for use in the country where you purchased your computer. If you plan to go overseas with the computer, consult your dealer for the appropriate power cord.
- When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or computer.
- When unplugging the connector, always hold the plug head. Never pull on the cord.

The AC adapter serves as a converter from AC (Alternating Current) to DC (Direct Current) power because your computer runs on DC power, but an electrical outlet usually provides AC power. It also charges the battery pack when connected to AC power.
The AC adapter operates on any voltage in the range of 100 ~ 240 V AC.
The car adapter serves as a converter from car battery to DC power. The cigarette lighter port of the car usually provides DC power. It also charges the battery pack when connected. The car adapter operates on any voltage in the range of 12 ~ 32 V DC.

NOTE: The battery pack cannot be charged when the input power of car adapter falls below 11.5 V DC.

Battery Pack

The battery pack is the internal power source for the computer. It is rechargeable using the AC or car adapter.
The operating time of a fully charged battery pack depends on how you are using the computer. When your applications often access peripherals, you will experience a shorter operating time.

> **NOTE:** Care and maintenance information for the battery is provided in Chapter 8. In addition to this chapter, be sure to read the "Battery Pack Guidelines" section in Chapter 8 as well.

Charging the Battery Pack

> **NOTE:**
> - Charging will not start if the battery's temperature is below 0°C (32°F) or above 40°C (104°F).
> - The charging process will stop when the battery's temperature gets above 60°C (140°F). If this happens, the battery pack may be damaged, please contact your dealer.
> - During charging, do not disconnect the AC adapter before the battery has been fully charged; otherwise you will get a prematurely charged battery.

To charge the battery pack, connect the AC adapter to the computer and an electrical outlet. The Battery Charge Indicator LED on the computer glows orange to indicate that charging is in progress. You are advised to keep the computer power off while the battery is being charged. When the battery is fully charged, the Battery Charge Indicator LED glows green.
It takes approximately 90 minutes to charge the battery pack to 80% capacity and two or three more hours to fully charge the battery pack.

> **CAUTION:** After the computer has been fully recharged, do not immediately disconnect and reconnect the AC adapter to charge it again. Doing so may damage the battery.

Initializing the Battery Pack

You need to initialize a new battery pack before using it for the first time or when the actual operating time of a battery pack is much less than expected.
Initializing is the process of fully charging, discharging, and then charging. It can take several hours.

1. Make sure the computer power is turned off. Connect the AC adapter to fully charge the battery pack.
2. After the battery pack is fully charged, turn on the computer.
3. Disconnect the AC adapter and leave the computer on until the battery is fully discharged. The computer will shut down automatically.
4. Connect the AC adapter to fully charge the battery pack.

Checking the Battery Level

> **NOTE:** Any battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the computer.

You can check the approximate battery level using the battery meter function of the operating system. To read the battery level in Windows, click the icon on the taskbar. (Click the icon if the computer is using AC power.)

Replacing the Battery Pack

> **CAUTION:**
> - There is danger of explosion if the battery is incorrectly replaced. Replace the battery only with the computer manufacturer's optional battery packs. Discard used batteries according to the dealer's instructions.
> - Do not attempt to disassemble the battery pack.

If you often rely on battery power for a long period of time while traveling, you may consider the purchase of an additional battery pack from your dealer and keep it with you in a fully charged state as a backup.

To replace the battery pack, follow these steps:

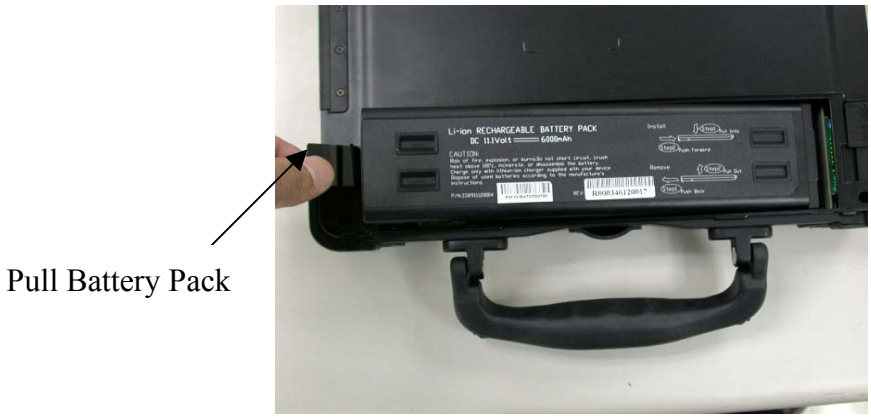
1. Make sure the computer is not turned on or connected to AC power.
2. Carefully place the computer upside down.
3. Slides the battery cover latch inward and remove the battery compartment cover.

Battery Cover Latch

4. Pull the battery pack.

Battery Block

5. Pull on the protruding strip to slide the battery pack to the left and lift the battery pack out of its compartment.



6. Insert the new battery pack into the compartment and slide the battery pack to the right to allow the proper connection of connectors.

7. In order to fixed battery back, we put the battery block on the rear of the battery.

8. Replace the battery compartment cover and slide the battery cover latch outward to secure it.

Battery Low Signals and Actions

Battery Low occurs when the battery has approximately 10% of its charge remaining. The computer in the Battery State Indicator LED blink to alert you to take actions.

NOTE: You can set up your threshold and signals of Battery Low under Windows.

Immediately save your data upon Battery Low. The remaining operating time depends on how you are using the computer. If you are using the audio subsystem, PC Card, hard or CD-ROM or floppy disk drives, the battery might run out of charge very quickly.

Always respond to Battery Low by placing your computer on suspend-to-disk, turning off the computer, or connecting the AC or car adapter.

If you do not take any action and after two minutes' , the computer will automatically suspend-to-disk (if enabled under O/S program) and turn off or, system will continue on until battery is dead.

- CAUTION:
- If you are using a flash PC Card, do not access the card during battery low periods. This is because the access may take longer than the time it takes the battery to run out of charge, thus making your access to the card unsuccessful.
- If you fail to save your data when the battery completely runs out of charge, then you lose your data.

Power Management

Your computer supports APM (Advanced Power Management) and ACPI (Advanced Configuration and Power Interface) for power management. The power management feature allows you to reduce the power consumption for energy saving.
With an ACPI-compliant operating system such as Windows 98 and Windows 2000, power supply to different computer components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time.
In general, Windows' power management works in this way:

What …	When …
Power to the hard disk is turned off	When the hard disk has been idle for a set period.
Power to the display is turned off	When the display has been idle for a set period.
The computer enters Standby mode. The hard disk and display are turned off and the entire system consumes less power.	When the entire system has been idle for a set period, or when you press **Fn**+**F10**, * or when you close the cover, * or when you press the power button. *
The computer enters Hibernation mode. (See the next subsection for more information.)	When you press **Fn**+**F10**, * or when you close the cover, * or when you press the power button. *

* Depends on your settings in Windows.

For detailed information on power management, see Windows' Help.

Suspend-to-Disk (Suspend mode)

> **NOTE:** If your operating system does not support ACPI, you can use the computer's "Suspend-to-Disk" function, which is equivalent to Windows' Hibernation function. (See "Power Menu" in Chapter 5 for more information.)

Manual Power Management

You can manually initiate Suspend-to-disk mode at any time in one of two ways:

- Use the O/S that supports the Suspend function.
- Press down the power button and release it in less than 4 seconds with the system on. Repeat the action to wake up the system under Suspend mode.

Suspend-to-disk is a very useful feature. People frequently open many applications when they use computers. It takes some time to get all these applications open and running, and normally they all have to be closed before the system can be turned off.

When you use the Suspend-to-disk feature, you do not have to close the applications. The computer stores the state of your computer to a file on the hard disk and then shut down. The next time you turn on your computer, you return to exactly where you left off.

Power-Saving Tips

In addition to your computer's automatic power management, you can do your part to maximize the battery's operating time by following these suggestions.

- Do not disable Power Management.
- Decrease the LCD brightness to the lowest comfortable level.
- Disable the parallel and serial ports if no devices are connected to these ports. (See "Advanced Menu" in Chapter 5.)
- If you work with an application that uses the serial port or a PC Card, exit the application when you finish using it.
- If you have a PC Card installed, remove it when not in use. Some PC Cards drain power even while they are inactive.
- Turn off the computer when you are not using it.

CHAPTER 4

Expanding Your Computer

You can expand the capabilities of your computer by connecting other peripheral devices. When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter.

This chapter gives guidelines on installing and using these devices:

External monitor

Parallel device (through the optional docking station)

Serial device

USB device

PC Card

Connecting an External Monitor (Optional)

If you want the benefits of a larger display screen with higher resolution, you can connect an external CRT monitor to your computer through the optional docking station.

Follow this procedure to connect an external monitor:

1. Make sure the computer is not turned on.
2. Plug the monitor's D-type signal connector to the docking station's VGA port.
3. Plug one end of the monitor's power cord into the power socket on the monitor and the other end to an electrical outlet.
4. To use the monitor, turn on the monitor before turning on the computer.
5. The monitor should respond by default. If not, you can switch the display to the monitor or to both (simultaneous displays) by pressing Fn+**F9**. In Windows, you can also change the display through the settings in **Display** Properties.
6. You can change display settings through your operating system. See your operating system documentation or online help for specific information.

CAUTION: Do not disconnect the external monitor while the computer is in Standby mode or Suspend mode. If no external monitor is connected when the computer resumes, the LCD remains blank and the output is not displayed.

Connecting a Parallel Device (optional)

The optional docking station has a parallel port for connecting a parallel device such as printer. The port supports ECP (Extended Capabilities Port) and EPP (Enhanced Parallel Port) modes that turn the standard parallel port into a high-speed bi-directional peripheral port.

Follow this procedure to connect a parallel device:

1. Make sure that the "LPT Port" item is set properly in the BIOS Setup program. (See "Advanced Menu" in Chapter 5 for information.)
2. Make sure the computer is not turned on.
3. Plug the parallel device's cable to the docking station's parallel port.
4. If the parallel device has independent power, plug its power cord into an electrical outlet.
5. If the parallel device has its own power switch, turn on the parallel device before turning on the computer.

Connecting a Serial Device

Your computer has a serial port for connecting a serial device such as a serial mouse or modem.

Follow this procedure to connect a serial device:

1. Make sure the "COM1 Port" item is set properly in the SCU program. (See "Advanced Menu" in Chapter 5 for information.)
2. Make sure the computer is not turned on.
3. Plug the device cable to the serial port on the computer.

> **NOTE:** When the computer is connected to the optional docking station, plug its cable to the serial port on the rear of the docking station instead of using the serial port of the computer.

4. Turn on the computer.

> **NOTE:** Portable modems that derive power through the serial port cannot be used with the computer. Instead, use a modem that is powered by its own internal battery or external AC power.

Connecting a USB Device (USB 2.0)

Your computer has one USB port on the right side for connecting USB 2.0 devices such as digital camera, scanner, printer, modem, or mouse and two USB ports on the left side of the optional docking station.

USB is specified to be an industry standard extension to the PC architecture. It supports "Plug-and-Play" technology so you can install and remove USB devices without turning off the computer. With its multiple connection capability, up to 127 devices can be connected in a daisy-chain configuration. In addition, you can use a USB hub that converts a single USB connector into multiple ports where USB devices can be connected.

To connect a standard USB device, simply plug the device cable to the USB port on the computer.

NOTE:

- When the computer is connected to the optional docking station, plug its cable to the USB port on the left side of the docking station instead of using the USB port of the computer.

Using PC Cards

Your computer has one PC Card slot to accommodate one type II card.

ZV Port and CardBus Support

Your computer's PC Card slot supports CardBus and ZV (Zoomed-Video) Port specifications. CardBus is the 32-bit version of PC Card technology. It allows speeds of up to 133 Mbps at 33 MHz. Typical applications are SCSI host bus, graphic video, and high-speed network cards.

Inserting and removing a PC Card

NOTES:

- Some PC Cards require additional system resources. Before using such PC card, you may have to free other system resources for the PC Card.
- Although some PC Cards can be inserted and removed without turning off the computer, you cannot remove or install PC Cards during Standby mode.

To insert a PC Card:

1. Locate the PC Card slot on the right side of the computer.
2. Slide the PC Card, with its label facing up, into the slot until the eject button pops out.
3. When a new card is seated, the computer will detect it and try to install the appropriate driver. Follow the on-screen instruction to complete the process.

To remove a PC Card:

1. Your operating system may require you to stop the PC Card before you actually remove it. (In Windows, double-click the **PC Card icon** in **Control Panel** to stop the card.)
2. Push the eject button and the card will slide out slightly.
3. Pull the card out of the slot.

System Memory Upgrade

You can upgrade your computer by changing system memory to a maximum of 1GB on the DDR SDRAM slot. However, to avoid damage during the installation procedure, please ask your dealer for help.

CHAPTER 5

Setup Configuration Utility (SCU)

SCU is a program for configuring the BIOS (Basic input/output System) settings of the computer.

BIOS are a layer of software, called firmware that translates instructions from other layers of software into instructions that the computer hardware can understand. The BIOS settings are needed by your computer to identify the types of installed devices and establish special features.

This chapter tells you how to use the SCU program.

When and How to Use the SCU Program

When to Use

You need to run the SCU program when:

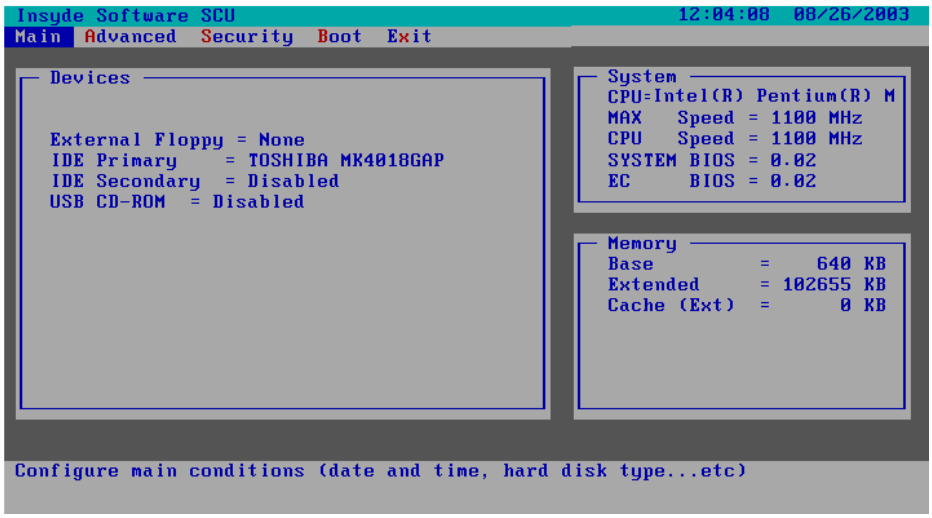
- You see an error message on the screen requesting you to run Setup.
- You want to restore the factory default settings.
- You want to modify some specific settings according to the hardware.
- You want to modify some specific settings to optimize system performance.

Starting SCU

NOTES:

- The Setup screens shown in this chapter are for your reference only. The actual items or settings on your computer may differ.
- The Setup program may have been updated after the publication of this manual.
- The settings you select in your operating system might override similar settings in Setup.

To run SCU, press **F2** when the prompt appears in the left corner of the screen during system startup. The prompt shows up on the screen for only a few seconds. You must press **F2** quickly. The SCU menu appears as shown next.



The menu can be divided into four areas:

- On the top line is the menu bar containing the titles of the available menus. Each menu title brings a specific menu.
- The center left column of the menu contains items that you can set for the selected menu title.
- The right column of the menu provides help information of the selected item.
- The bottom lines give keyboard instructions for moving around and making selections.

Moving Around and Making Selections

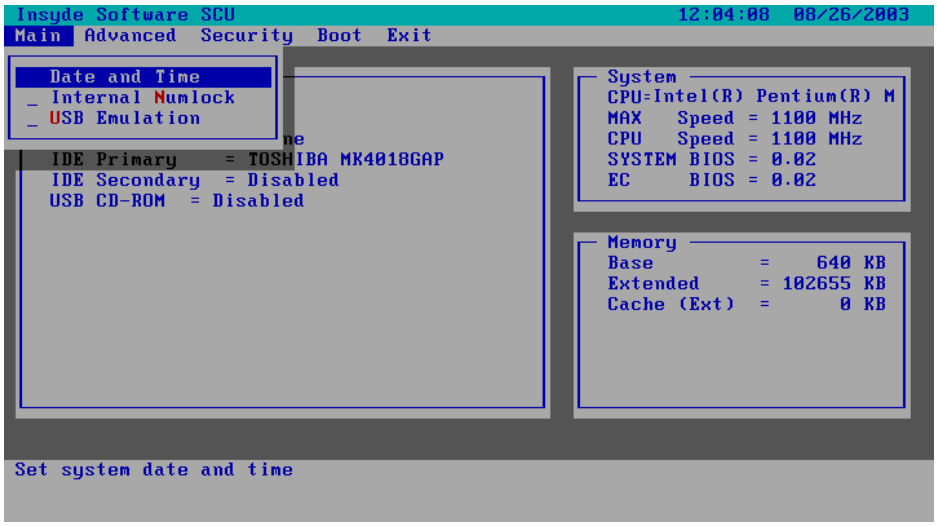
A brief description of keyboard usage is listed next:

Key	Function
←, →	Selects a menu title.
↑, ↓	Selects an item or option.
Enter	Opens or closes the options window when an item is selected.
Space bar, –	Cycles through the pre-defined value for the selected item. Pressing the space bar brings up the next value; pressing the minus (–) key does the contrary.
Esc	1) Exits the SCU program. 2) Returns to the previous menu if in a submenu. 3) Closes the options window if one is open.

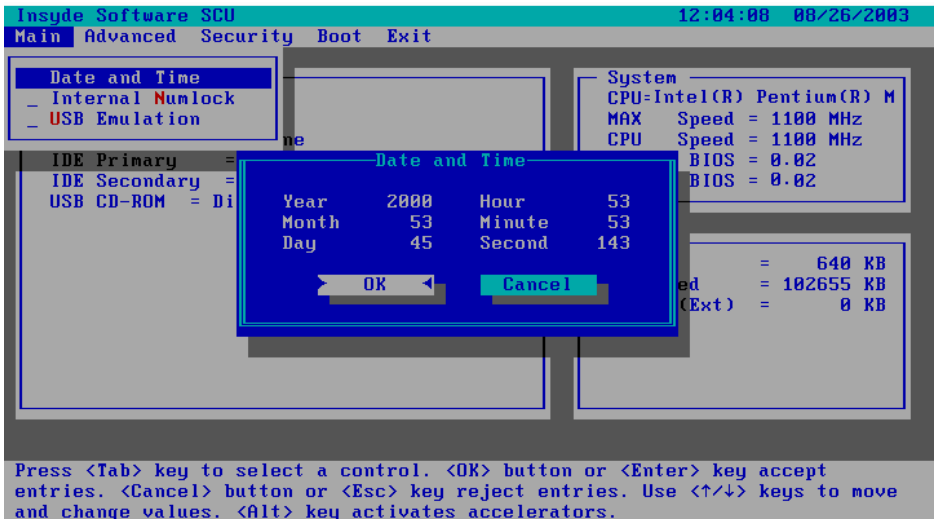
NOTE: You are advised to use the touchpad or mouse (if installed), as it is more straightforward than using the keyboard.

Main Menu

The Main menu contains the basic configuration settings of the system.

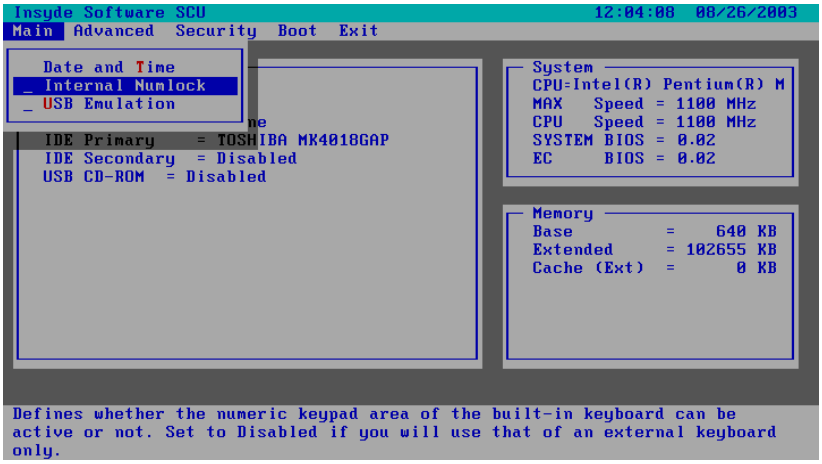


Date and Time Sets the system date and time.

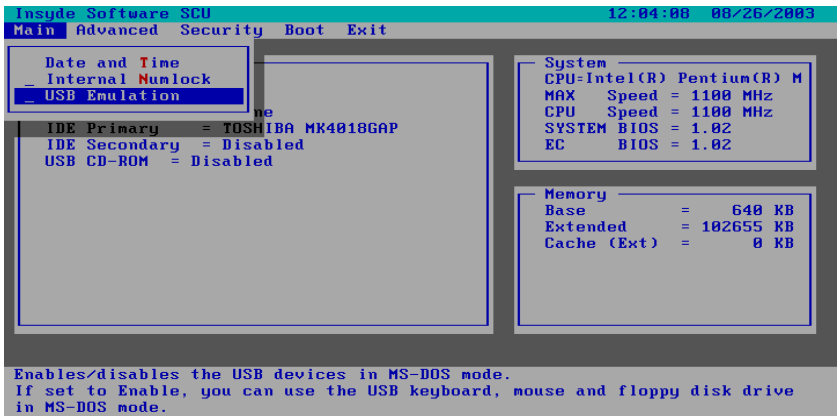


Internal and Numlock

sets if you can enter a number when **Num Lock** is turn off. When this item is enabled, you can press and hold **FN**, and then press a letter key to enter a number even if **Num Lock** is turned off. When this is disabled, you cannot enter a number with the above method. A check mark (✓) indicates enabled while undline (_) indicates disabled.

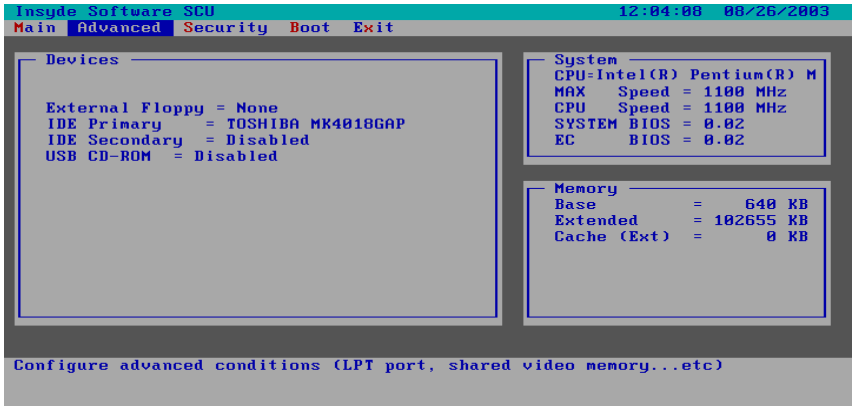

Insyde Software SCU
12:04:08 08/26/2003
Main Advanced Security Boot Exit
Date and Time
_ Internal Numlock
_ USB Emulation
IDE Primary = TOSHIBA MK4018GAP
IDE Secondary = Disabled
USB CD-ROM = Disabled
System
CPU=Intel(R) Pentium(R) M
MAX Speed = 1100 MHz
CPU Speed = 1100 MHz
SYSTEM BIOS = 0.02
EC BIOS = 0.02
Memory
Base = 640 KB
Extended = 102655 KB
Cache (Ext) = 0 KB
Defines whether the numeric keypad area of the built-in keyboard can be active or not. Set to Disabled if you will use that of an external keyboard only.

USB Emulation enables or disables the system' s support for the USB port in DOS mode.


Insyde Software SCU
12:04:08 08/26/2003
Main Advanced Security Boot Exit
Date and Time
_ Internal Numlock
_ USB Emulation
IDE Primary = TOSHIBA MK4018GAP
IDE Secondary = Disabled
USB CD-ROM = Disabled
System
CPU=Intel(R) Pentium(R) M
MAX Speed = 1100 MHz
CPU Speed = 1100 MHz
SYSTEM BIOS = 1.02
EC BIOS = 1.02
Memory
Base = 640 KB
Extended = 102655 KB
Cache (Ext) = 0 KB
Enables/disables the USB devices in MS-DOS mode.
If set to Enable, you can use the USB keyboard, mouse and floppy disk drive in MS-DOS mode.

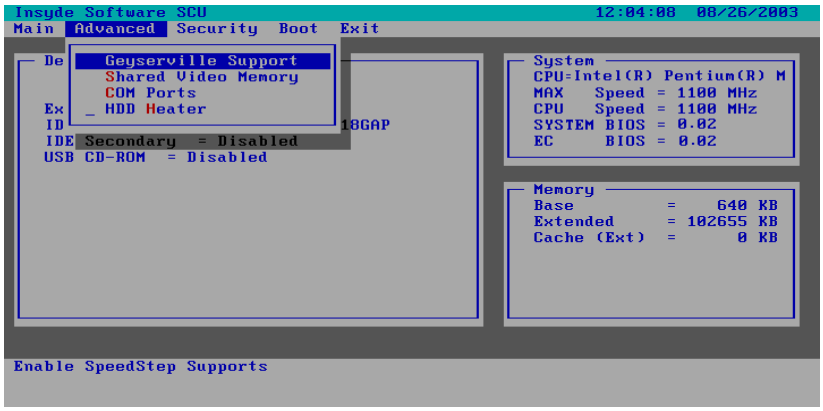
Advanced Menu

The Advanced menu contains the input/output configuration settings of the system.

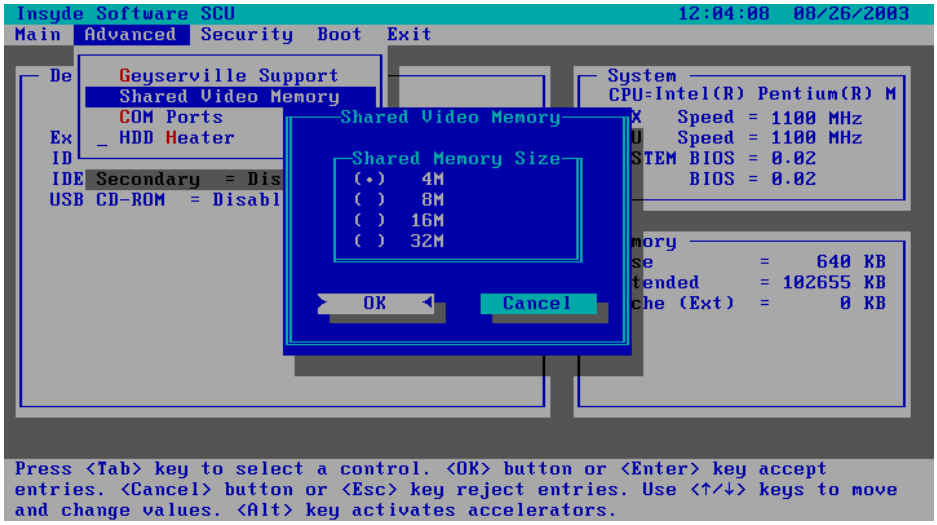


Geyserville Support

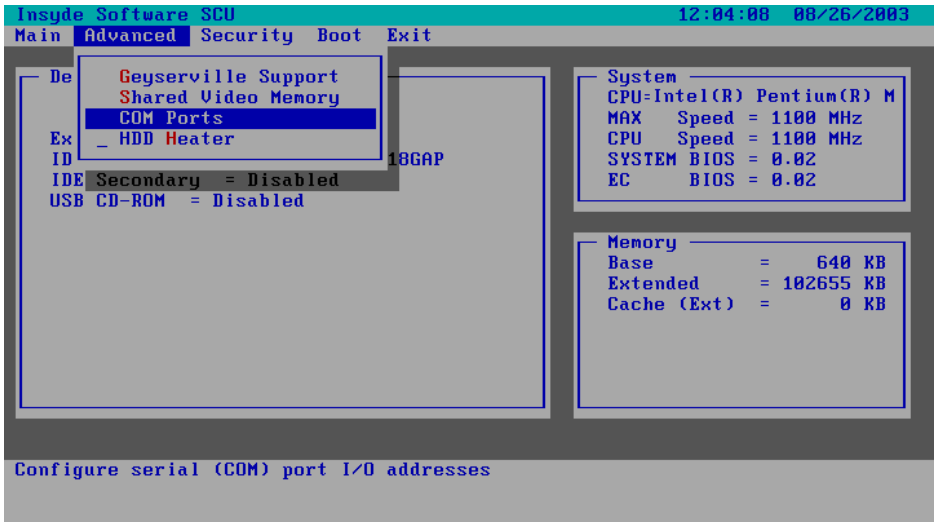
Enables or disables the Geyserville feature of the CPU. The Geyserville feature helps conserve battery life by decreasing the CPU's running speed under certain conditions while still maintaining a high performance. If this item is enabled, the CPU will automatically change its speed whenever necessary based on the "Power Scheme" setting in Windows's Control Panel. If this item is disabled, the CPU will always run in the low speed.



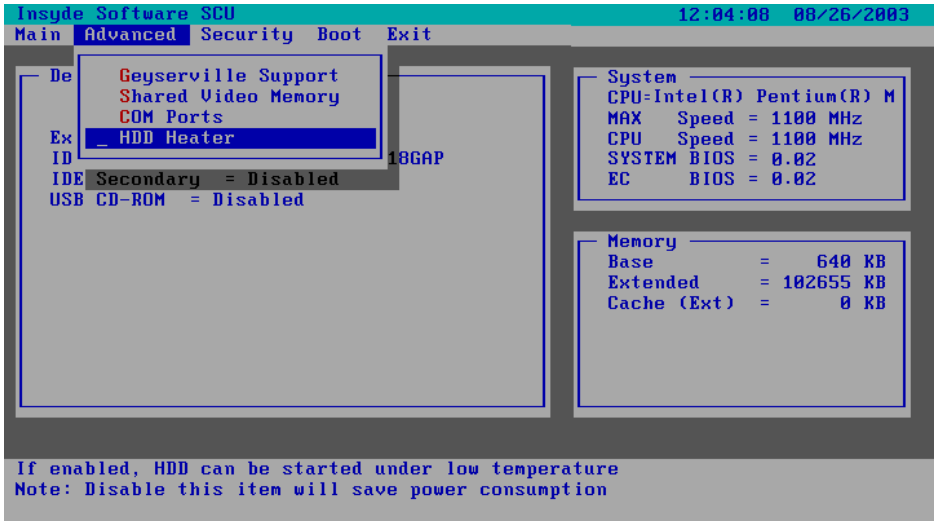
Shared Video Memory sets the shared memory size of the video controller. The options are 4M, 8M, 16M and 32M.



Com Ports

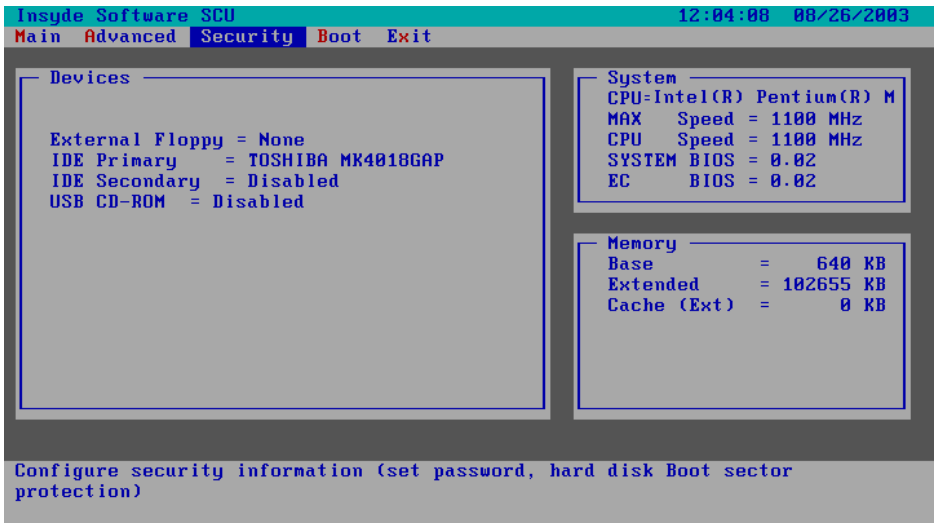


HDD Hearter

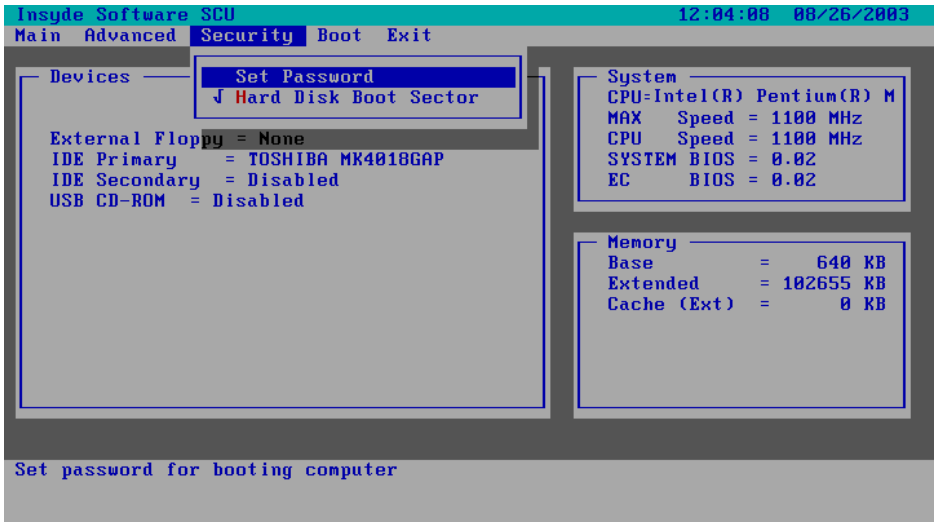


Security Menu

The Security menu contains the security setting that safeguards your system against unauthorized use.

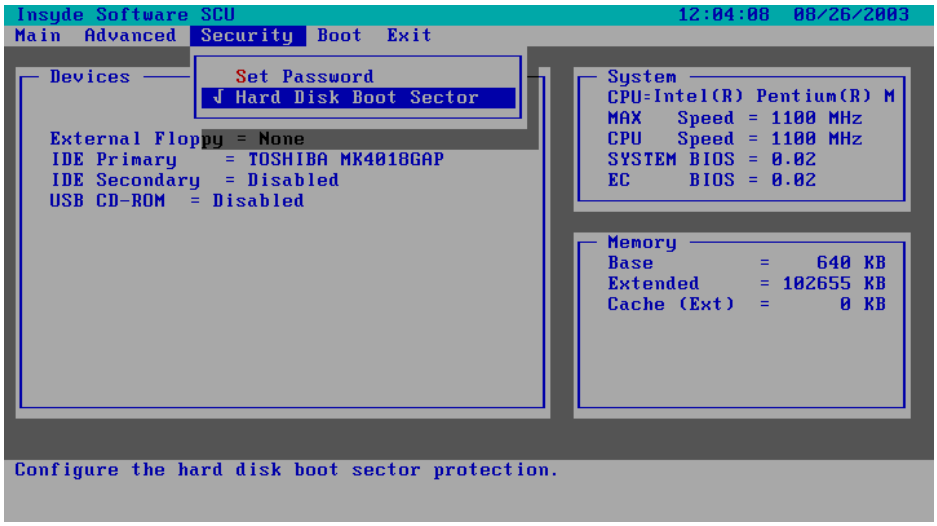


Set Password allows you to set the password for your system. When typing password, first make usre that **Num Lock** is off, then type your password in the entry fields and press **Enter**. Confirm your password by typing it again and pressing **Enter**. If the **Enable Password to Power-on** sub-item is enabled, the set password is always required to boot the computer.



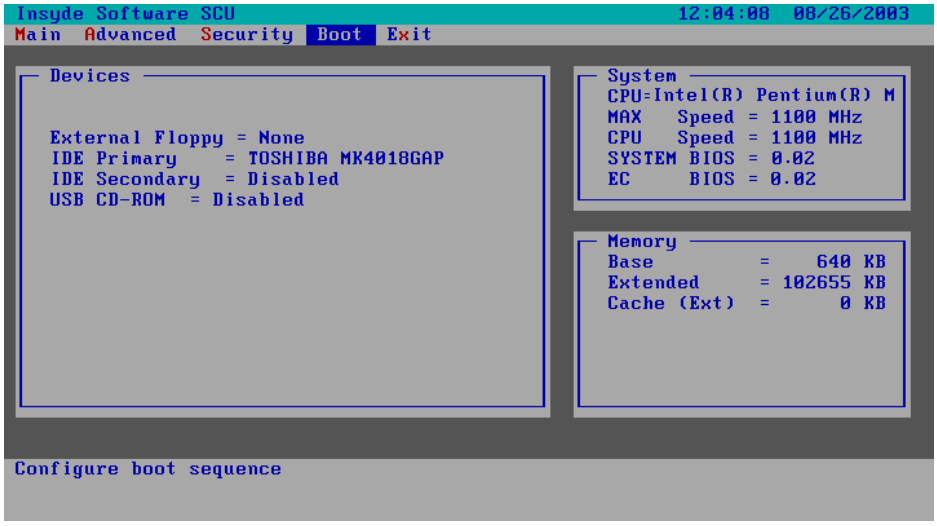
Hard Disk Boot Sector sets if a warning message will appear when the hard disk boot sector (partition table) has been changed. A check mark (✓) indicates enabled, while an underline (_) indicates disabled. The default setting is disabled.

> **CAUTION:** sets this item to disabled before installing an operating system, running Fdisk or Format program. Otherwise, the intended action will fail.



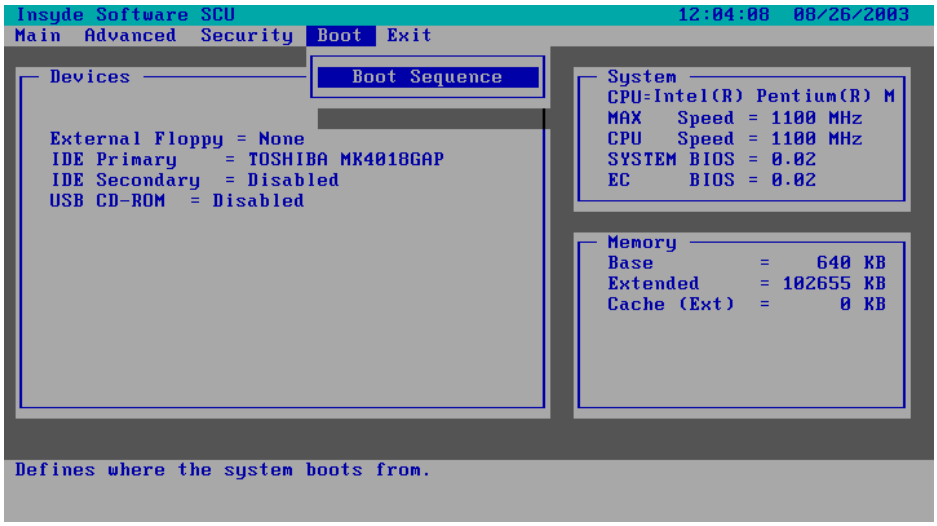
Boot Menu

The Boot men sets the sequence of the devices to be searched for the operating system.



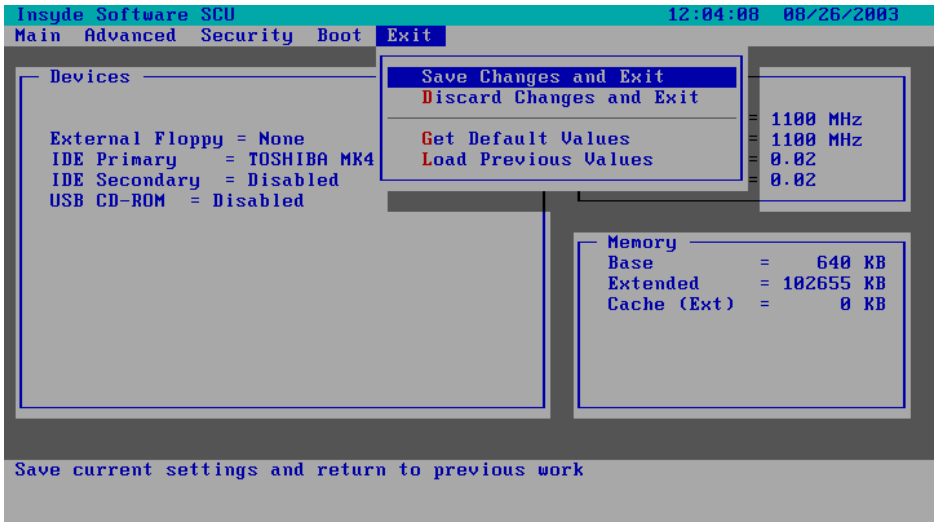
Boot Sequence sets the first, second, third, and fourth booting devices. The system will try to boot from the first device but if it is not available, will try the next boot device. If you set the first boot device to LAN Boot, the system will boot from the LAN server first. The options are Hard Disk Drive, CD-ROM Drive, Floppy Disk Drive, and LAN Boot. The default setting is Floppy Disk Drive, Hard Disk Drive, CD-ROM Drive, then LAN Boot.

> Note: If you set all booting options to the same device, then the computer will try to boot from that device only.



Exit Menu

The Exit menu displays ways of exiting SCU. After finished with your setting, you must save and exit so that the new setting can take effect.



Save Change and Exit saves the changes you have made and exits SCU.

Discard Changes and Exit exits SCU without saving the changes you have made.

Get Default Values loads factory default values for all the items.

Load Previous Values loads CMOS values before running SCU.

CHAPTER 6

Installing Software Drivers

To take full advantage of the unique features of your computer, some operating systems require custom software, known as drivers, to be installed.

If you purchased the computer with Windows pre-installed; your dealer may have already installed the drivers. If not, you need to install the drivers using the CD supplied with your computer. This chapter describes how to install the drivers.

How to Use the CD

NOTES:

- The drivers may have been updated after this manual was published. For driver' s upgrade, please contact your dealer.
- You can always find README or document files on the CD. These files contain the latest information from the software supplier. Please read the files together with this chapter.
- This driver CD supports Windows 2000 and Windows XP only.
- The available items may differ according to your computer model and Operating System.

An autorun is provided on the driver CD to help you easily install the drivers. As you insert the driver CD, the autorun program automatically starts. If you need to start the program manually, run the Autorun.exe program from the Setup directory of the driver CD.

Note: If driver CD version is not the same as the one shown on the Operation Manual, please refer to the UserGuide file on the driver CD for the latest driver installation action steps and sequence.

Install Device Driver for Windows 2000/Windows XP

To install the necessary driver, just click on the particular option and follow the onscreen instructions to continue and complete installation.

Device Driver Press the "Device driver" button, the system will auto install include VGA, Audio, Modem, LAN , Wireless LAN, USB 2.0, DirectX 8.1, Chipset driver.

VGA Allows you to select high-resolution displays with richer colors. It can drive CD displays as well as CRT displays.

Audio Allows you to take full advantage of the audio subsystem.

Modem The modem driver allows you to transmit information over a standard telephone line through RJ-11 port.

Speedstep Press the Speedstep button, the system will auto install for Window 2000.

LAN/Wireless
LAN Allows you to use the network function of the computer.

USB 2.0 Allows your system to connect to USB 2.0 devices.

DirectX 8.1 Allows you to take full advantage of the multimedia applications.

Chipset Ensures the full function of the following drivers.

Install this main chipset driver installing the device drivers.

Touchscreen Allows you to use your fingers as a pointing device on the LCD screen (refer to the next section for further instructions).

DOCKING DRV Click on the WIN2000/WINXP button to install docking driver, the system will auto install USB To COM Port.

Note: *ML850 can support USB 1.1 and USB 2.0 350K CCD*

Install Touch Screen Driver for Windows 2000

1. Insert the driver CD into the drive.
2. Click on "TOUCH SCREEN" then "WIN2000", and follow the onscreen instructions to continue.
3. When finished installing, select "Yes" to reboot your system. The driver should now be loaded.
4. After the system has finished rebooting, click on the "PenMount Monitor" icon located on the taskbar to bring up the "PenMount Control Panel."
5. Select the " Standard Calibrate" folder and click on "OK" button.
6. If you need 4,9,16,25 dot of the calibrate, we suggest select "Advanced Calibration" button to calibrate.
7. Click on the four sides (points) and the plus-sign "+" on the screen to calibrate your touchscreen pen for use on the computer.

Installing Drivers for Windows XP

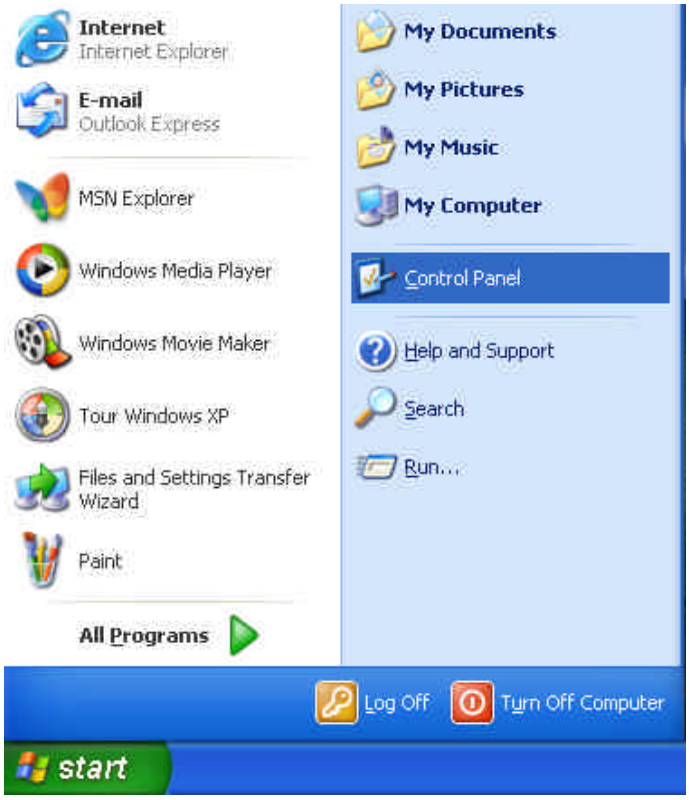
To set up the necessary drivers for Windows XP, click on “TOUCH SCREEN ” on the initial screen. The following screen appears:

Install Touch Screen Driver for Windows XP

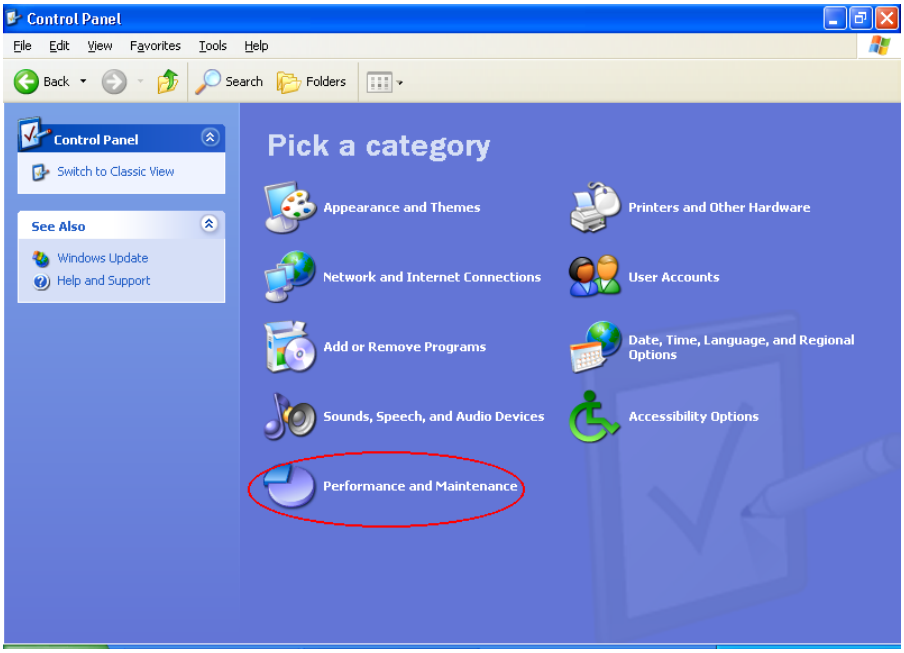
Hardware Install:

(1) Insert the driver CD to the CD drive, to bring up the following screen. Select “WINXP”.

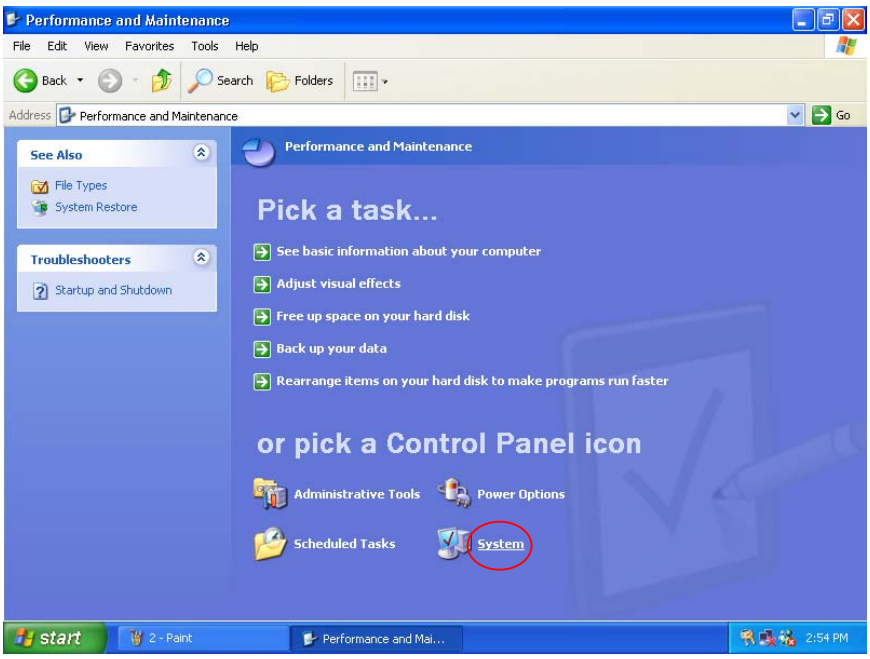
(2) When the TSRC-XP.htm file appear, then select ”START” -> “Control Panel” button.



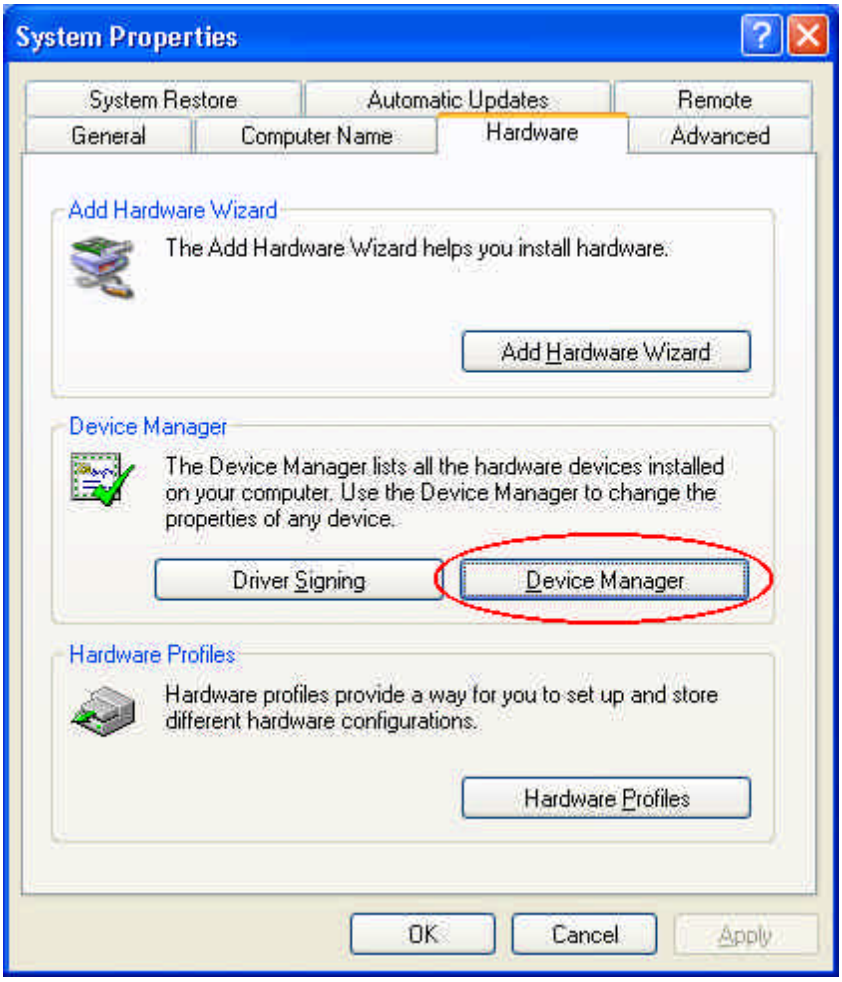
(4) When the “Control Panel “ screen appear, then click on
“ performance and Maintenance” button.



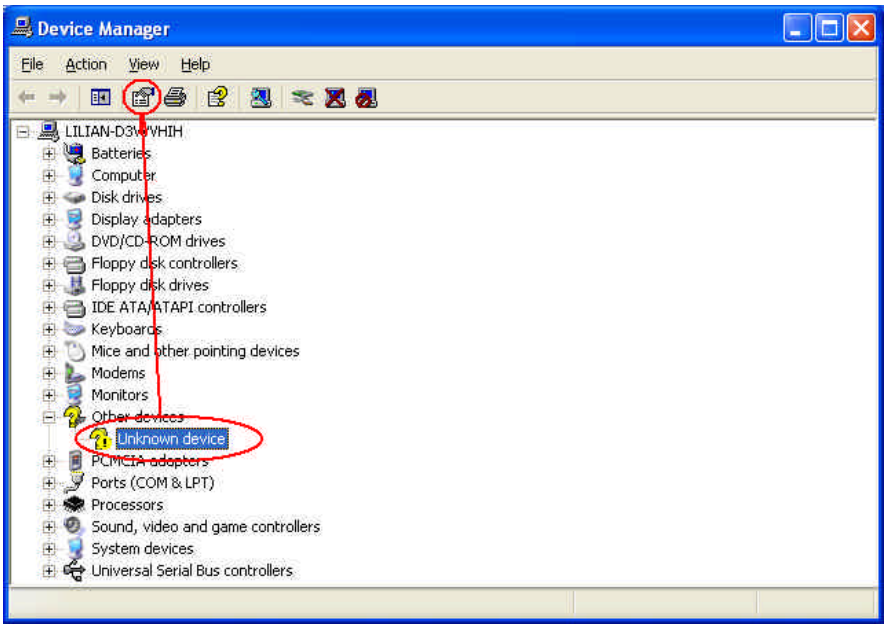
(5) When the “Performance and Maintenance” screen appear, and then click on “System” button.



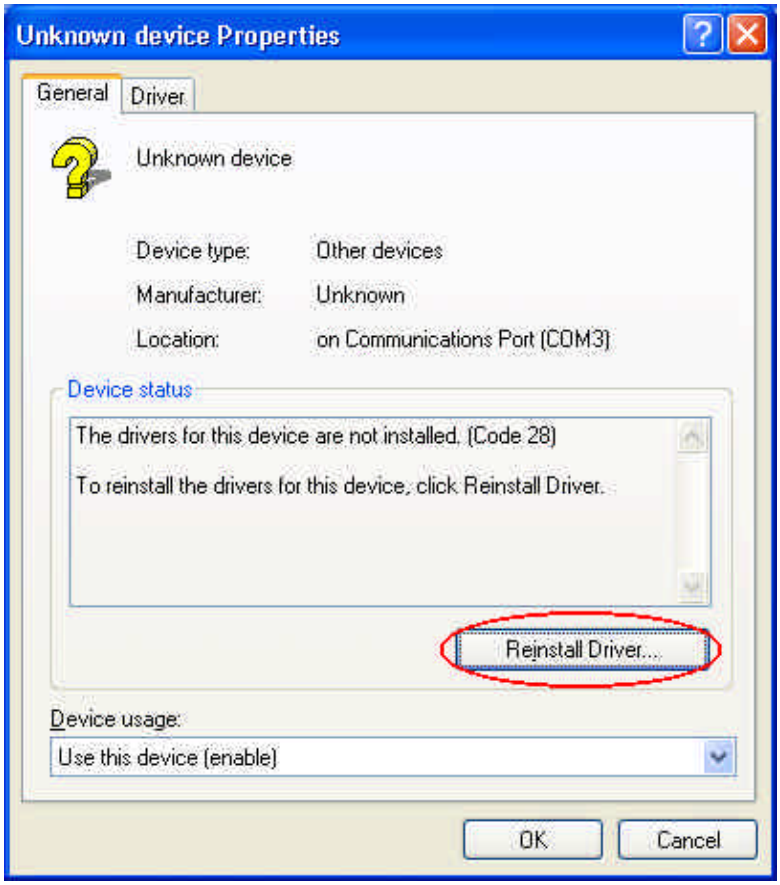
(5) When the "System Properties" screen appear, and then click on "Hardware" and "Device Manager " button.



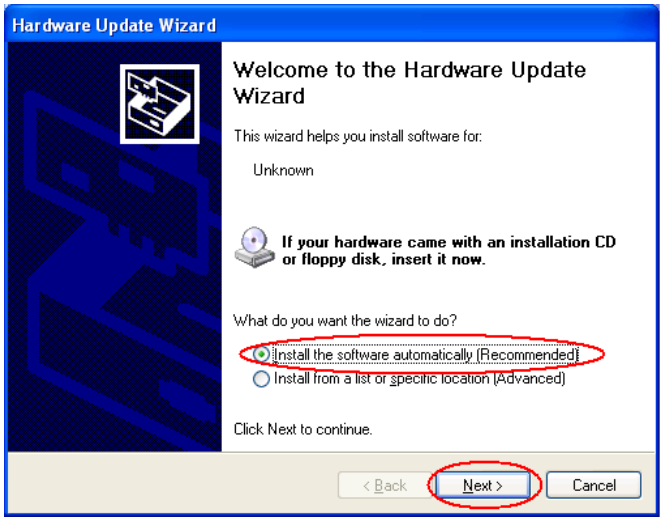
(6) When the “Device Manager” screen appear, then click on “ ?Unknown device” and then click on the “Properties” icon.



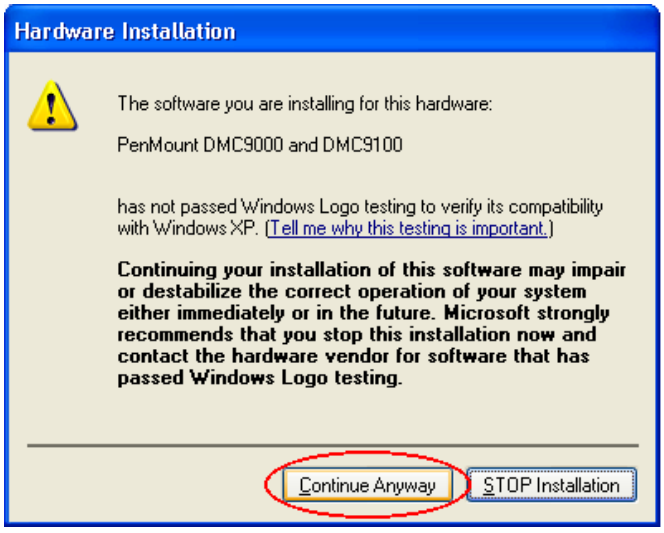
(8) When the “Unknown Device Properties” screen appear, and then click on “ Reinstall Driver” button.



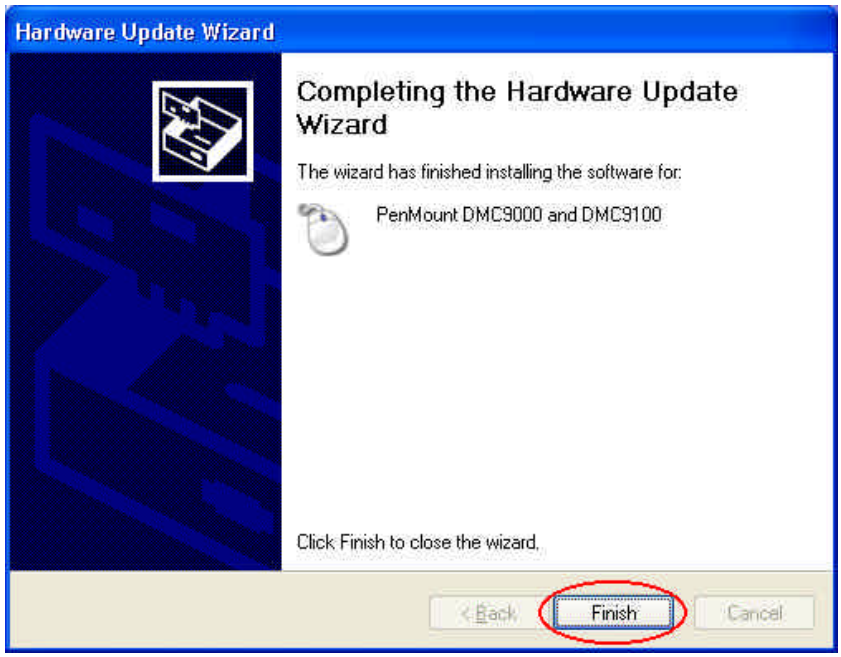
(9) When the “Hardware Update Wizard” appears, click on “ Install the software automatically [Recommand], then click on ”Next”.


Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Unknown
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

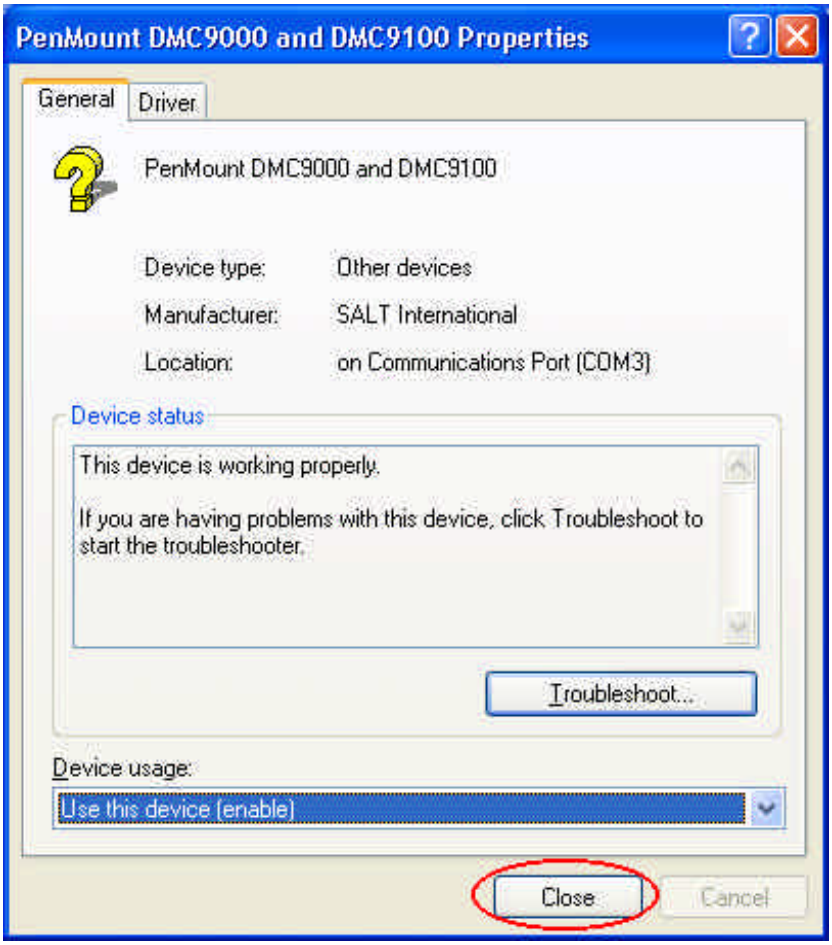
(10) When the “Hardware Installation” screen appears, click on ”Continue Anyway”.


Hardware Installation
The software you are installing for this hardware:
PenMount DMC9000 and DMC9100
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

(11) When the “Hardware Update Wizard”screen appears, click on ”Finish” button.



(12) When the “PenMount DMC9000 and DMC9100 Properties”screen appears, click on ”Close” button to exit the driver installation..

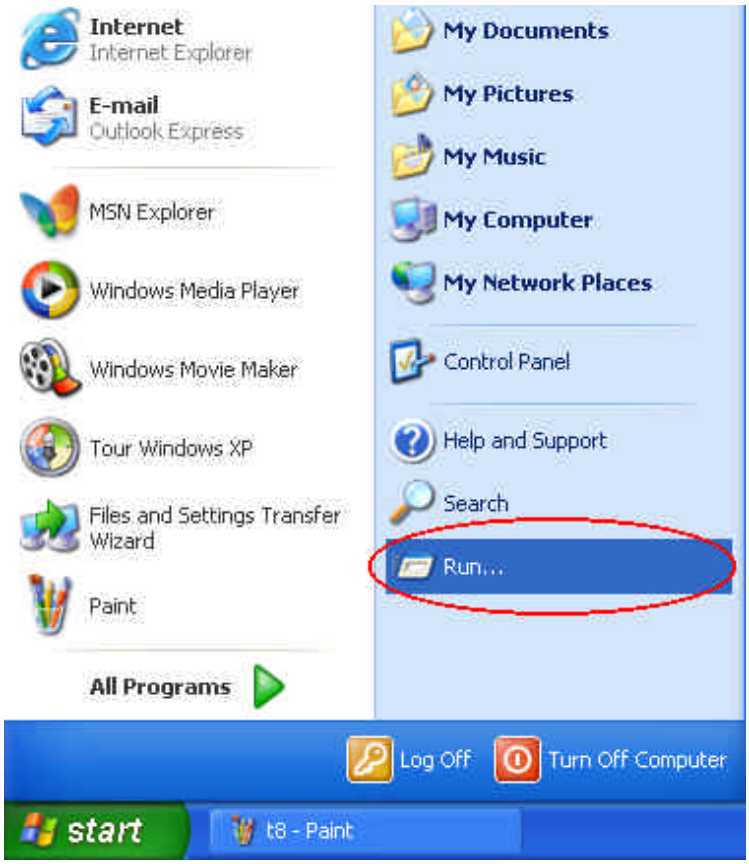


Touchscreen Utility

To install the touchscreen utility, perform the following:

(1) Insert the driver CD to the CD drive, to bring up the following screen.

(2) Click on “Start” then “Run”.



(3) Enter the following directory on the driver CD:

\TOUCHSCREEN\Setup.exe, then click on "OK".

(4) Select "Yes" to the question if this is the first time to run this setup.

(5) When the "InstallShield Wizard" appears, click on "Next" to continue.

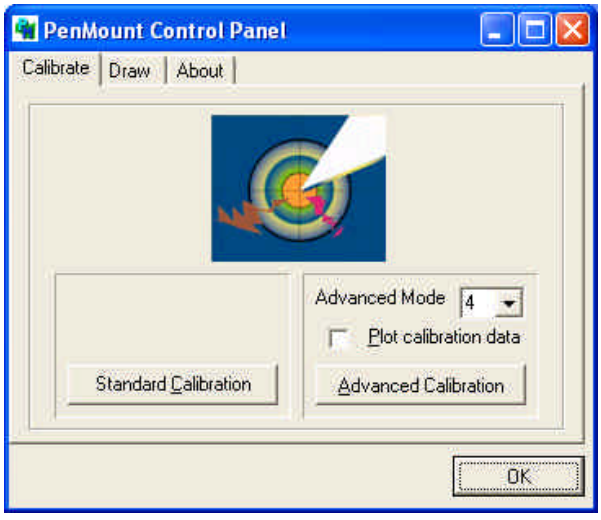
(6) Select " I accept the terms in the license agreement," then click on "Next".

(7) When the "Ready to Install the Program" screen appears, clcik on "Install" to continue.

(8) Reboot the system.

(9) After the system has restarted, click on the "PM" icon located on the lower-right portion of your taskbar to bring up the "PENMOUNT Control Panel".

(10) When the "PENMOUNT Control Panel" dialog box appears, click on the "Calibrate" folder and click on the "Standard Calibration" button.



(11) If you need 4,9,16,25 dot of the calibrate, we suggest select " Advanced Calibration" button to calibrate.

(13) Click on the four sides red points and plus sign on the screen to calibrate your "PENMOUNT" pen to start using your ML 850's Touchscreen.

CHAPTER 7

Caring for the Computer

Taking good care of your computer will ensure a trouble-free operation and reduce the risk of damage to your computer.

This chapter gives you guidelines covering these areas of maintenance:

- How to protect the computer
- What to note when using and storing the computer
- How to clean the computer
- What to note when using the battery pack
- What to note when traveling with the computer

Protecting the Computer

To safeguard the integrity of your computer data as well as the computer itself, you can protect the computer in several ways as described in this section.

Using the Password

The power-on password protects your computer against unauthorized use. If the password is set, the prompt requesting for the password appears on the screen whenever the computer is turned on.

The password is set via the SCU program. See "Security Menu" in Chapter 5 for instructions.

Using an Anti-Virus Strategy

New viruses are always being developed nowadays and they are attacking computers even more easily with emails so commonly used worldwide.

The Security feature of the SCU program protects the boot sector of the hard disk. To enable the function, see "Security Menu" in Chapter 5 for instructions.

You can also install a virus-detecting program to monitor potential viruses that could damage your files.

Taking Care of the Computer

Location Guidelines

- Use the computer where the temperature is between 0 °C to 55 °C .
- Avoid placing the computer in a location subject to high humidity, extreme temperatures, mechanical vibration, direct sunlight, or heavy dust.
- Do not cover or block any ventilation openings on the computer. For example, do not place the computer on a bed, sofa, rug, or other similar surface. Otherwise, overheating may occur that results in damage to the computer.
- Keep the computer at least 13 cm (5 inches) away from electrical appliances that can generate a strong magnetic field such as a TV, refrigerator, motor, or a large audio speaker.
- Do not move the computer abruptly from a cold to a warm place. A temperature difference of more than 10 °C (18 °F) will cause condensation inside the unit, which may damage the storage media.
- Do not place the computer on an unsteady surface.

General Guidelines

- Do not place heavy objects on top of the computer when it is closed as this may damage the display.
- The screen surface is easily scratched. Do not use paper towels to clean the display. Avoid touching it with a ballpoint pen or pencil.
- To maximize the life of the backlight in the display, allow the backlight to automatically turn off as a result of power management. Avoid using a screen saver or other software that prevents the power management from working.

Cleaning Guidelines

- Never clean the computer with its power on.
- Use a soft cloth moistened with water or a non-alkaline detergent to wipe the exterior of the computer.
- Gently wipe the display with a soft, lint-free cloth. Do not use alcohol or detergent on the display.
- Dust or grease on the touchpad/touchscreen can affect its sensitivity. Clean the pad/screen by using adhesive tape to remove the dust and grease on its surface.

Battery Pack Guidelines

- Recharge the battery pack when it is nearly discharged. When recharging, make sure the battery pack is fully charged. Doing so may avoid harm to the battery pack.
- Operate the computer with the battery pack installed even when using external power. This ensures that the battery is fully charged.
- If you will not be using the computer for a long period of time (more than two weeks), remove the battery pack from the computer.
- If you remove the battery pack, make sure the battery terminals do not contact any conductors such as metal objects or water. Otherwise, the battery may become unusable as a result of a short circuit.
- If you need to store the battery pack, store it in a cool, dry place. Never allow the temperature to exceed 60 °C (140 °F).
- Do not leave the battery pack in storage for more than 6 months without recharging it.

Note: In order to fixed battery back, we put the block of the battery on the back of the battery. (If you want to replace battery pack, please see page 3-5.)

When Traveling

- Before traveling with your computer, make a backup of your hard disk data into floppy disks or other storage devices. As an added precaution, bring along an extra copy of your important data.
- Make sure the battery pack is fully charged.
- Make sure the computer is turned off and the top cover is securely closed.
- Do not leave objects that will press onto the display.
- Disconnect the AC adapter from the computer and take it with you. Use the AC adapter as the power source and as a battery-charger.
- Hand-carry the computer. Do not check it in as luggage.
- If you need to leave the computer in the car, put it in the trunk of the car to avoid exposing the computer to excessive heat.
- Allow extra time for airport security. Many airports inspect electronic devices carefully.
- When going through airport security, it is recommended that you send the computer and floppy disks through the X-ray machine (the device you set your bags on). Avoid the magnetic detector (the device you walk through) or the magnetic wand (the hand-held device used by security personnel).
- If you plan to travel abroad with your computer, consult your dealer for the appropriate AC power cord for use in your country of destination.

CHAPTER 8

Troubleshooting

Hardware, software, or a combination of both can cause computer problems. When you encounter any problem, it might be a typical problem that can easily be solved.
This chapter tells you what actions to take when solving common computer problems. It is divided into three sections:

- Preliminary checklist
- Solving common problems
- Resetting the computer

Preliminary Checklist

Here are helpful hints to follow before you take further actions when you encounter any problem:

- Try to isolate which part of the computer is causing the problem.
- Make sure that you turn on all peripheral devices before turning on the computer.
- If an external device has a problem, make sure that the cable connections are correct and secure.
- Make sure that the configuration information is properly set in the SCU program.
- Make sure that all the device drivers are correctly installed.
- Make notes of your observations. Are there any messages on the screen? Do any indicators light? Do you hear any beeps? Detailed descriptions are useful to the service personnel when you need to consult one for assistance.

If any problem persists after you follow the instructions in this chapter, contact an authorized dealer for help.

Solving Common Problems

For easy reference, the problems are divided into these categories.

Problem Type	Go to
Battery problems	P. 8-4
CD/DVD/COMBO drive problems (on optional docking station)	P. 8-5
Display problems	P. 8-5
Floppy disk drive problems (on optional docking station)	P. 8-7
Hardware device problems	P. 8-8
Hard disk drive problems	P. 8-8
Keyboard, mouse, and touchpad problems	P. 8-9
LAN problems	P. 8-10
Wireless LAN problems	P. 8-10
Modem problems	P. 8-10
PC Card problems	P. 8-10
Power Management problems (for Windows)	P. 8-11
Printer problems (connected to optional docking station)	P. 8-12
Software problems	P. 8-12
Sound problems	P. 8-13
Startup problems	P. 8-13
Other problems	P. 8-15

Battery Problems

The battery does not charge (Battery Charge LED indicator does not light orange).

- Make sure that the AC adapter is properly connected.
- Make sure that the battery is not too hot – gets above 55ºC or too cold – below 0ºC. Allow time for the battery pack to return to room temperature.
- Make sure that the battery pack is installed correctly.
- Make sure that the battery terminals are clean.

The operating time of a fully charged battery becomes shorter.

- If you often partially recharge and discharge, the battery might not be charged to its full potential. Initialize the battery to solve the problem. (See "Initializing the Battery Pack" in Chapter 3 for instructions.)
- Make sure that power to the computer is off. If you use the computer during recharging for more than 4 hours, the recharging will stop no matter whether the battery has been fully charged or not. If this happens, you can disconnect and then reconnect the AC adapter to start the recharging again.

The battery operating time indicated by the battery meter does not match the actual operating time.

- The actual operating time can be different from the estimated time, depending on how you are using the computer. If the actual operating time is much less than the estimated time, initialize the battery. (See "Initializing the Battery Pack" in Chapter 3 for instructions.)

CD/DVD/COMBO Drive Problems (on optional docking station)

The CD/DVD/COMBO drive cannot read a CD.

- Make sure that the CD is correctly seated in the tray, with the label facing up.
- Make sure that the CD is not dirty. Clean the CD with a CD cleaning kit, available in most computer stores.
- Make sure that the CD/DVD/COMBO drive driver is installed correctly.
- Make sure that the computer supports the CD or files.

You cannot eject a CD.

- The CD is not properly seated in the drive. Manually release the CD following the method described next:

1. Turn off the computer.
2. Insert a small rod, such as a straightened paperclip, into the drive' s manual eject hole and push firmly to release the tray.
3. Pull the tray out until fully extended, and then remove the CD.

Display Problems

Nothing appears on the screen.

- If the power-on indicator LED is not on, check the electrical outlet, the plugs and power cords.
- If the power button does not respond to a light touch, press the button firmly.
- If you are using the battery power, make sure that it has a charge remaining and that it is installed correctly.
- During operation, the screen may automatically turn off as a result of power management. Press any key to see if the screen comes back.

- The brightness level might be too low. Increase brightness by pressing **Fn**+**F6**.
- The display output might be set to an external monitor. To switch the display back to the LCD, press **Fn**+**F9**.
- Reset the computer by pressing the **Ctrl**+**Alt**+**Del** keys if you are using an external keyboard.
- Try turning the computer off; wait a few seconds, then turn it backs on.

The characters on the screen are dim.

- Adjust the brightness.

Bad dots appear on the display at all times.

- A small number of missing, discolored, or bright dots on the screen are an intrinsic characteristic of TFT LCD technology. It is not regarded as a LCD defect. The Inspection Standard generally agreed in the LCD industry allows a maximum of 8 pixels on a unit.

Term definition:	
Bright dots	When the LCD screen is lighted, dots appear bright at a dark area. Red/green/blue bright dots also count.
Dark dots	When the LCD screen is lighted, dots appear black at bright areas.
Distance between defective dots	The minimum distance between two defective dots.
Adjacent defective dots	Defective dots within a radius of 10 mm.

Resolution cannot be adjusted to desired setting.

- Make sure that the video driver is installed correctly.
- Make sure that the video memory in the SCU program is configured properly.
- If using an external display device, make sure that the device supports the desired resolution.

The external monitor displays nothing.

- Make sure that the monitor is turned on.
- Make sure that the monitor's signal cable is properly connected.
- Check if the Setup item **Display Mode** on the Main menu of the SCU program is configured correctly.
- Switch the display to the monitor by pressing **Fn**+**F9** or through the Windows' **Display** properties.

Simultaneous display does not work.

- Make sure that you turn on the external monitor before turning on the computer.
- Check the Setup item **Display Mode** on the Main menu of the SCU program is configured correctly.
- Press **Fn**+**F9** or use Windows' **Display** properties to select the display options.

Floppy Disk Drive Problems (on optional docking station)

The Floppy Disk Drive In-use Indicator stays on.

- Make sure that the floppy disk is not physically damaged.
- Make sure that the floppy disk is inserted correctly.

The disk drive cannot write to a floppy disk.

- Make sure that the floppy disk is formatted.
- Make sure that the floppy disk is not write-protected.
- Make sure that you are writing to the correct drive.
- Make sure that there is enough space left on the floppy disk.
- Make sure that the floppy disk is not physically damaged.

The disk drive cannot read a floppy disk.

- Make sure that the floppy disk is formatted.
- Make sure that you are reading the correct drive.

Hardware Device Problems

The computer does not recognize a newly installed device.

- The device may not be correctly configured in the SCU program. Run the SCU program to identify the new type.
- Make sure if any device driver needs to be installed. (Refer to the documentation that came with the device.)
- Make sure if the device needs any jumper or switch settings. (Refer to the documentation that came with the device.)
- Check the cables or power cords for correct connections.
- For an external device that has its own power switch, make sure that the power is turned on.

Hard Disk Drive Problems

The computer cannot find the hard disk drive after it is turned on.

- Make sure that the hard disk drive type is configured correctly in the SCU program.

The hard disk drive error message appears on the screen.

- Insert a bootable diskette and check the integrity of your hard drive.
- The hard disk drive has defects. Ask your dealer for help.

The hard disk drive operations seem slow.

- The data files stored on the hard disk drive may be fragmented. Use a tool such as Window' s **Disk Defragmenter** to defragment the files.

The hard disk drive in-use indicator glows without blinking.

- The data files stored on the hard disk drive may be fragmented. Use a tool such as Window's **Disk Defragmenter** to defragment the files.

Keyboard, Mouse and Touchpad Problems

The keyboard does not respond.

- Try connecting an external keyboard. If it works, contact the authorized dealer, as the internal keyboard cable might be loose.

The numeric keypad is disabled.

- Make sure that **Num. Lk** is switched on. (Check if the **Num. Lk** LED Indicator 1 lights green or not.)

The external keyboard does not work.

- Make sure that the keyboard cable is properly connected.

The PS/2 mouse does not work.

- Make sure that the mouse cable is properly connected.
- Make sure that the pointing device is enabled in the SCU program.

The serial mouse does not work.

- Make sure that the mouse cable is properly connected.
- Make sure that you connect the mouse before booting the computer.
- Make sure that the serial port is enabled in the SCU program.

The touchpad does not work, or the pointer is difficult to control with the touchpad.

- Make sure that the touchpad is clean.

LAN Problems

I cannot access the network.

- Make sure that the LAN driver is correctly installed.
- Make sure that the LAN cable is properly connected to the RJ-45 connector and the network hub.
- Make sure that the network configuration is appropriate.
- Make sure that the user name or password is correct.

Wireless LAN Problems

I cannot use the WLAN feature.

Make sure that the Mini PCI WLAN card is correctly installed.

Make sure that the necessary driver(s) is correctly installed.

Make sure that the WLAN feature is turned on.

Modem Problems

The modem does not work.

- Make sure that the modem driver is correctly installed.
- Make sure that the telephone line is properly connected.
- Make sure that the COM port in the communication software is correctly set.
- Turn off power management.

PC Card Problems

The PC Card does not work.

- Make sure that the PC Card is correctly seated.
- If the card requires an IRQ (interrupt request), make sure that there is one available.
- The PC Card may be attempting to use a COM port in a manner that conflicts with the COM port being used by another device. Try running the SCU program to change the COM port setting. If your PC Card uses COM1, set COM1 as *Disabled*. If your PC Card uses COM3, set COM3 as *Disabled*. If your PC Card uses COM4, set COM4 at *Disabled*.

WARNING: COM3 is reserved for use by the touchscreen, do not disable it.

The following table is the default settings:

COM Port	I/O (input/output) Port	IRQ (Interrupt Request)
COM1 (available)	3F8	IRQ4
COM4 (reserve for Wireless Modem)	2E8	IRQ5
COM3 (reserved for touchscreen only)	3E8	IRQ3

The PC Card stops communicating properly.

- The application may have been reset when the computer is turned off or in Standby mode. Exit and restart the application.

Power Management Problems (for Windows)

The computer does not enter Standby or Suspend mode automatically.

- If you have a connection to another computer, the computer does not enter Standby or Suspend mode if the connection is actively in use.

- Make sure that the Standby or Suspend time-out is enabled.

The computer does not enter Standby or Suspend mode immediately.

- If the computer is performing an operation, it normally waits for the operation to finish.

The computer does not resume from Standby or Suspend mode.

The computer automatically enters Standby or Suspend mode when the battery pack is empty. Does any one of the following:
– Connect the AC or car adapter to the computer.
– Replace the empty battery pack with a fully charged one.

The computer does not enter Standby or Suspend mode with the Fn+F10 hot keys.

- You might be using a PC Card that prevents the computer from entering Suspend mode. To enter the mode, stop the communication program and then remove the card or stop the card.

Printer Problems (connected through optional docking station)

The printer does not work.

- Make sure that the printer is turned on (if with independent power source) and is online (ready to use).
- Make sure that the printer' s signal cable is properly connected.
- Make sure that the printer driver is correctly installed.
- Make sure that you have assigned the printer port correctly in your operating system or application program.
- Make sure that the printer port is enabled in the SCU program.

The printer prints garbled information.

- Make sure that the printer driver is correctly installed.
- Make sure that the printer cable is properly connected.

Software Problems

An application program does not work correctly.

- Make sure that the software is correctly installed.
- If an error message appears on the screen, consult the software program' s documentation for further information.
- If you are sure the operation has stopped reset the computer. (See "Resetting the Computer" in this chapter.)

Sound Problems

No sound is produced.

- Make sure that the volume control is not set too low.
- Make sure that the audio driver is correctly installed.
- Make sure that the computer is not in Standby mode.
- If using an external speaker, make sure that the speaker is properly connected.

Distorted sound is produced.

- Make sure that the volume control is not set too high or too low. In most cases, a high setting can cause the audio electronics to distort the sound.

The sound system does not record.

- Adjust the playback or recording sound levels.

The external microphone or audio device does not work.

- Make sure that the microphone is connected to the proper connector on the computer.
- Make sure that your computer is equipped with the driver needed.
- Click the speaker symbol on the taskbar and check the Windows volume control.
- Check the volume control of your computer.

Startup Problems

When you turn on the computer, it does not respond and the Power Indicator does not light green.

- If you are using an external AC power, make sure that the AC adapter is correctly and securely connected. If so, make sure that the electrical outlet works properly.
- If you are using the battery power, make sure that the battery is not discharged.

When you turn on the computer, it stops after POST.

- Restart your computer.

The message "Operating system not found" appears on the screen after you turn on the computer.

- Make sure that there is no floppy disk in the floppy disk drive (when connected to the docking station). If there is, remove it and restart the system.
- If this message appears when you are booting from the hard disk, insert a bootable disk in the floppy disk drive and check the condition of the hard disk.
- Make sure that the hard disk is set correctly in the SCU program.

The message "Invalid system disk" or "Disk error" appears on the screen after you turn on the computer.

- If you are deliberately trying to boot from a floppy disk, replace the disk with a bootable one and press any key to continue booting.
- If you are booting from the hard disk, make sure that there is no floppy disk in the floppy disk drive (when connected to the docking station). If there is, remove it and restart the system.
- If this message appears when you are booting from the hard disk, insert a bootable disk in the floppy disk drive (when connected to the docking station) and check the condition of the hard disk.
- Make sure that the hard disk is set correctly in the SCU program.

Other Problems

The date/time is incorrect.

- Correct the date and time via the operating system or SCU program.
- After you have performed everything as described above and still have the incorrect date and time every time you turn on the computer, the RTC (real-time Clock) battery is at the end of its life. Call an authorized dealer to replace the RTC battery.

Resetting the Computer

You may have to reset (reboot) your computer on some occasions when an error occurs and the program you are using hangs up.
If the system operation seems to hang up, first wait. It is possible that the system is processing data. Periodically check the hard disk drive in-use LED indicator, if it flashes irregularly, the program may be accessing data and preventing you from using the keyboard. If you are sure the operation has stopped and you cannot use the "restart" function of the operating system, reset the computer.
Reset the computer by any one of these method:

- Press **Ctrl**+**Alt**+**Del**.
- If the above action does not work, turn off the system. Wait for at least five seconds and turn it on again.

CAUTION: Resetting will cause any unsaved data to be lost.

APPENDIX

Specifications

NOTE: Specifications are subject to change without any prior notices.

Parts		Specifications
CPU		Intel Pentium M Processor LV1.1 GHz in µ-FCBGA
Cache Memory		L2 1M on-die
ROM BIOS		512 KB Flash EEPROM, PC2001-compliant
RAM	System	One 200-pin PC2100 DDR SO-DIMM sockets, standard 256 MB, Maximum 1GB
	Video	64MB (integrated DDR memory)
Display	Panel	12.1-inch TFT XGA LCD, resolution up to 1024×768, 18-bit color 12.1-inch touch screen (optional) Sunlight Readable, Hi-Contrast display (optional)
	Video controller	855 GM , integrated 32 bit 3D/2D gfx core with Dynamic Support Directx(R)R
	Video port	VGA port via optional docking station
Keyboard		Water-proof membrane keyboard, Backlight function (Optional) Rubber keyboard with back-light (Optional)
Pointing device		PS/2-compatible touchpad or touchscreen pen
Storage device	Floppy disk drive	3.5-inch, 1.44 MB (via optional docking station)
	Hard disk drive	2.5-inch, IDE, Ultra DMA-100 support
	CD/DVD/COMBO drive	CD-ROM, DVD-ROM, or COMBO (via optional docking station)
Audio	Audio controller& Audio port	AC97 audio support MS-Sound compatible Built-in one speaker (Mono) Microphone-in Earphone-out
PC Card		Type II x 1, PCMCIA 2.1 compliant, ZV Port and CardBus support

Parts			Specifications
I/O ports	On computer		Serial Port × 1 VGA Port x 1 USB 2.0 port x 2 DC input x1 Docking Port x1 RJ-11x1 for 56Kbps Software Modem port RJ-45 100 Base-T LAN port Microphone-in & Earphone out ports
	Docking station (option)		Serial Port × 1 (pure serial singal) Serial Port x 1 (USB transfer to serial signal) Parallel Port x 1 VGA port x 1 USB 2.0 port x 3 DC input x1 CD-ROM/DVD-ROM Combo drive Microphone-in & Earphone out ports
Modem			56 KBPS internal fax modem
LAN			Fast Ethernet, 10/100 MBPS auto-negotiation
Power		AC adapter	100~240 V AC, 50~60 Hz auto-switching
		Car adapter	12~32 V DC
		Battery	Li-ion battery, 9 cells
Dimension (W×D×H)			10.8×9.4×1.7 inch (276×239×43 mm) – for computer 10.87×9.41×1.02 inch (276×239×26 mm) – for docking station (option)
Weight			5.91 lb. (2.7 kg) – includes handle and battery for computer 2.76 lb. (1.25 kg) – for docking station (option)
Environment		Temperature	Operating: 0 °C to 55 °C -20°C to 55°C (Optional) Non-operating: –40 °C to 70 °C
		Humidity	Operating: 5% to 95% RH, non-condensing